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U.S. DISTRICT COURT
SOUTHERN DIST. OHIO
EAST. DIV. COLUMBUS

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION

UNITED STATES OF AMERICA, **Plaintiff,**	)	2:17 cr 169
v.	)	**CASE NO.** _____ Judge Graham
	)	**Violations:**
GREGORY SCHNABEL, **Defendant.**	)	**18 U.S.C. § 371**

INFORMATION

The UNITED STATES charges that at all times material to this Information, in the Southern District of Ohio, and elsewhere:

COUNT 1
Conspiracy to Commit Criminal Offenses
18 U.S.C. § 371

Introduction

Persons and Business Entities

1. Defendant GREGORY SCHNABEL ("Defendant SCHNABEL") was a resident of New York, who served as the President of GRC Fuels Inc., as well as the principal officer of Gristle LLC.

2. GRC Fuels Inc. ("GRC") was a registered New York company located in Walton, New York, and Oneonta, New York, at various times. GRC operated as a broker and trader of renewable fuel, renewable fuel credits, and feedstock (typically animal fats and vegetable oils) used to make renewable fuel. Defendant SCHNABEL controlled and managed the business of GRC.

3. Gristle LLC ("Gristle") was a registered New York company located at various times at the same address as GRC in Oneonta, New York. Gristle operated as a trader and reseller of feedstock to the renewable fuels industry. Defendant SCHNABEL controlled and managed the business of Gristle.

4. New Energy Fuels LLC ("NEF") was a business in Waller, Texas, registered with the Environmental Protection Agency ("EPA") to process feedstock into biodiesel and generate valuable renewable fuel credits, and with the Internal Revenue Service ("IRS") to claim tax credits associated with the production of biodiesel.

5. Chieftain Biofuels LLC ("Chieftain") was a business in Logan, Ohio, registered with the EPA to process feedstock into biodiesel and generate valuable renewable fuel credits.

6. Dean Daniels was a resident of Florida who served as an officer and employee of NEF and Chieftain.

7. "Channelview" was an oil blender and wholesaler based in Channelview, Texas, whose actual name is known to the United States.

8. "Credit Buyer" was a marketer and trader of fuel credits, including EPA renewable fuel credits, based in Texas, whose actual name is known to the United States.

9. Unity Fuels LLC ("Unity") was a New Jersey corporation with locations in New Jersey and New York. Unity operated a facility that cleaned and processed used cooking oil to be resold as recycled vegetable oil ("RVO"). Unity did business under the name Grease Lightning at various times.

10. Malek Jalal was a resident of New York who served as manager and co-owner of Unity at various times.

11. Triton Energy LLC ("Triton") was an Indiana business located in Waterloo, Indiana. Triton operated a production plant registered with the EPA to process feedstock, specifically animal fats and vegetable oils, into renewable fuel and claim valuable renewable fuel credits.

12. Fred Witmer was a resident of Indiana who served as the president and CEO of Triton.

13. Gen-X Energy Group ("Gen-X") was a business in Pasco, Washington, registered with the EPA to process feedstock into renewable fuel and generate valuable renewable fuel credits.

14. "Ohio Blender" was a waste treatment and fluid reclamation business operating in Hamilton County, Ohio.

Renewable Identification Numbers

15. Laws passed by Congress, particularly the Energy Independence and Security Act of 2007 ("EISA"), required the EPA and the IRS to promote renewable fuel production and use in the United States.

16. To this end, the EPA created a program requiring petroleum refiners and importers to have renewable fuel in their product portfolio. Under this program, refiners and importers must produce a certain amount of renewable fuel or, as an alternative to physically producing this fuel, they could purchase credits (also called "renewable identification numbers" or "RINs") from renewable fuel producers.

17. Renewable fuel producers generate RINs when they produce qualifying renewable fuels, such as biodiesel, in compliance with EPA regulations. Once a RIN is generated, it can be traded or sold on the open market. During the relevant time period a RIN was worth ...

18. RINs could be sold with the volume of fuel they were generated on, or, if lawfully separated from the fuel, they could be sold independently of the fuel. There are various regulations governing when and how RINs can be separated from the underlying fuel. After July 1, 2010, RIN transactions were reported electronically through the online EPA Moderated Transaction System (EMTS).

19. RINs could only be generated for the production of biodiesel if the biodiesel produced met a set of industry standards known as ASTM D6751.

20. There were additional regulations governing the sale and use of fuels on which RINs had been generated, including the restriction that RINs could only be generated on a quantity of fuel once.

Refundable Tax Credits

21. The EISA also tasked the IRS with encouraging the production and use of renewable fuels. In particular, it tasked the IRS with administering tax credits associated with the production of various renewable fuels and fuel mixtures, including:

    a. The Biodiesel Mixture Credit ("BMC"), 26 U.S.C. § 6426(c), which entitles registered claimants to a one dollar tax credit for every gallon of biodiesel used to produce a mixture of biodiesel and petroleum-based "taxable" fuel which is then sold for use as a fuel or used as a fuel by the claimant.

    b. The Alternative Fuel Mixture Credit ("AFMC"), 26 U.S.C. § 6426(e), which entitles registered claimants to a 50 cent tax credit for every gallon of alternative fuel used to produce a mixture of alternative fuel and taxable fuel which is then sold for use as a fuel or used as a fuel by the claimant.

c. The Alternative Fuel Credit ("AFC" or "AF Credit"), 26 U.S.C. § 6426(d), which entitles registered claimants to a 50 cent tax credit for every gallon of alternative fuel sold for use in (or used in) a motor vehicle or motorboat, provided they comply with additional regulatory requirements.

22. Tax credits could only be claimed on a given quantity of fuel one time.

23. It was illegal to claim these credits unless the fuel was produced, bought, blended, and sold in compliance with IRS regulations. In particular, it was illegal to claim the BMC unless the underlying biodiesel met ASTM D6751 and the blender submitted a legitimate "Certificate for Biodiesel" to the IRS.

24. Many of the tax credits created by the EISA were refundable, meaning that they could reduce a registered recipient's excise tax liability below zero, entitling them to a refund, or payment, from the IRS.

25. Since their inception, several of these tax credits have expired only to be later reinstated. For instance, the BMC, AFMC, and AFC lapsed at the end of 2011, only to be subsequently reinstated (with some modifications) by the American Taxpayer Relief Act of 2012 (Pub.L. 112-240) in early 2013. The American Taxpayer Relief Act also allowed registered companies to apply for retroactive credits for qualifying activities in 2012.

Summary Allegations

26. Beginning on or about July 19, 2011, and continuing thereafter until a time unknown to the United States, but not earlier than in or about March 2012, in the Southern District of Ohio and elsewhere, Defendant GREGORY SCHNABEL did knowingly and willfully

combine, conspire, confederate, and agree with Dean Daniels and others known and unknown to the United States, to commit offenses against the United States, specifically:

a. to make and present claims, specifically claims for the Biodiesel Mixture Credit, upon and against the United States and the IRS, knowing such claims to be false, fictitious, and fraudulent, in violation of 18 U.S.C. § 287;

b. to transmit and cause to be transmitted by means of wire and radio communication in interstate and foreign commerce, writings, signs, signals, pictures, and sounds for the purpose of executing a scheme and artifice to defraud, and for obtaining money and property by means of false and fraudulent pretenses, representations, and promises, in violation of 18 U.S.C. § 1343.

Means and Methods of the Conspiracy

Among the means and methods employed by Defendant SCHNABEL and his co-conspirators to carry out the conspiracy and effect its unlawful objects were the following:

New Energy Fuels

27. It was part of the conspiracy that NEF fraudulently generated biodiesel RINs on fuel that was not biodiesel and did not meet ASTM D6751. NEF then sold the fuel, with attached biodiesel RINs to GRC using EMTS.

28. It was part of the conspiracy that NEF claimed biodiesel tax credits, specifically the BMC, on this fuel. The proceeds from these claims were shared with GRC, including through the prices that NEF charged GRC for fuel.

29. It was part of the conspiracy that Defendant SCHNABEL separated the attached RINs and sold them to Credit Buyer under false and fraudulent pretenses using EMTS.

30. It was part of the conspiracy that Defendant SCHNABEL sold the loads of fuel to Channelview as a fuel commonly referred to as "bunker" or "cutter."

Chieftain Biofuels

31. It was part of the conspiracy between Defendant GREGORY SCHNABEL, Dean Daniels, and others known to the United States to expand and shift its operations from NEF, in Waller, Texas, to Chieftain, an existing renewable fuel facility, in Logan, Ohio.

32. It was part of the conspiracy that Defendant SCHNABEL arranged for loads of feedstock to be shipped to Chieftain where Dean Daniels and others would minimally process it, without producing biodiesel.

33. It was part of the conspiracy that Dean Daniels and others caused Chieftain to generate invalid biodiesel RINs for fuel that was not biodiesel and to submit fraudulent requests to the IRS for BMCs.

34. It was part of the conspiracy that Chieftain sold the fuel to GRC with biodiesel RINs attached.

35. It was part of the conspiracy that Defendant SCHNABEL separated and caused others to separate the RINs in EMTS before selling them to Credit Buyer under false and fraudulent pretenses.

36. It was part of the conspiracy that Defendant SCHNABEL sold and caused GRC to sell the fuel to various entities including Unity Fuels.

Overt Acts

In furtherance of the conspiracy, and to accomplish the objectives of the conspiracy, Defendant SCHNABEL and others did commit the following overt acts, among others, in the Southern District of Ohio and elsewhere:

New Energy Fuels

Overt Act 1 On or about July 19, 2011, Defendant SCHNABEL prepared a purchase agreement to provide 400,000 gallons per month of "Biomass-Based Renewable Fuel-(Neat Methyl ester)" to Channelview. The specifications listed on the contract were identical to the ones in an earlier contract between NEF and Channelview.

Overt Act 2 On or about July 27, 2011, after exchanging multiple drafts of the purchase agreement with Channelview, Defendant SCHNABEL signed a purchase agreement for "Light Burner Fuel-(BioMasFuels)." The specifications listed on the contract were unchanged.

Overt Act 3 On or about November 17, 2011, Defendant SCHNABEL sent documents via email to Credit Buyer to support the false claim that the RINs it purchased from GRC were generated on legitimate biodiesel.

Chieftain Biofuels

Overt Act 4 On or about September 12, 2011, Dean Daniels sent an email to Defendant SCHNABEL and others about taking over an existing facility in Logan, Ohio.

Overt Act 5 On or about September 12, 2011, Defendant SCHNABEL sent an email to a potential customer of the fuel to be produced at Chieftain.

a. In the email, Defendant SCHNABEL stated "The producers want to takeover a facility in Ohio and wants me to know contractually how much contractually I can sell 150,000 gallons of product a week."

b. Defendant SCHNABEL also acknowledged that "the lab analysis you did on the dark bio fuel...is accurate. I just had one done...I attached the lab results

for your internal use." The lab results attached to the email failed several of the parameters listed in ASTM D6751.

Overt Act 6 On or about September 28, 2011, Defendant SCHNABEL met with representatives of Chieftain regarding the possibility of signing a lease to operate its facility in order to generate RINs and tax credits.

Overt Act 7 On or about October 5, 2011, Dean Daniels signed an agreement to lease the Chieftain facility at 3219 Logan Horns Mill Road, in Logan, Ohio.

Overt Act 8 On or about November 21, 2011, Defendant SCHNABEL sent an email assuring Credit Buyer that he would provide back-up documents supporting Chieftain's claimed production of biodiesel.

All of which is a violation of 18 U.S.C. § 371.

COUNT 2
Conspiracy to Commit Criminal Offenses
18 U.S.C. § 371

37. Paragraphs 1 through 25 and 27 through 36 of this Information are realleged and expressly incorporated herein as if set out in full.

Summary Allegations

38. Beginning on or about September 30, 2011, and continuing thereafter until on or about May 30, 2012, in the Southern District of Ohio and elsewhere, Defendant GREGORY SCHNABEL did knowingly and willfully combine, conspire, confederate, and agree with others known and unknown to the United States, including Malek Jalal, to commit offenses against the United States, specifically:

a. to make and present claims for the Biodiesel Mixture Credit, Alternative Fuel Mixture Credit, and Alternative Fuel Credit, upon and against the United States and

the IRS, knowing such claims to be false, fictitious, and fraudulent, in violation of 18 U.S.C. § 287;

b. to transmit and cause to be transmitted by means of wire and radio communication in interstate and foreign commerce, writings, signs, signals, pictures, and sounds for the purpose of executing a scheme and artifice to defraud, and for obtaining money and property by means of false and fraudulent pretenses, representations, and promises, in violation of 18 U.S.C. § 1343.

Means and Methods of the Conspiracy

Among the means and methods employed by Defendant SCHNABEL, Jalal, and their co-conspirators to carry out the conspiracy and effect its unlawful objects were the following:

39. It was part of the conspiracy that Defendant SCHNABEL purchased and caused GRC to purchase fuel from Triton and Chieftain. When GRC purchased this fuel, it had RINs attached and tax credits had been claimed (until their expiration at the end of 2011).

40. It was part of the conspiracy that Defendant SCHNABEL sold and caused GRC to sell some of this fuel to Unity pursuant to his agreement with Jalal.

41. It was part of the conspiracy that Unity sold the fuel (mixed with smaller amounts of other material) back to GRC and Gristle relabeled as Recycled Vegetable Oil Blend or RVOB.

42. It was a part of the conspiracy that after receiving the purported RVOB, Defendant SCHNABEL caused GRC and Gristle to sell it to Chieftain or Triton as feedstock for making additional loads of fuel. The "RVOB" would then be re-processed, RINs would be generated on it again, tax credits claimed a second time, and the resulting "fuel" (and invalid RINs) would again be purchased by GRC.

43. It was part of the conspiracy that Defendant SCHNABEL separated and caused others to separate these RINs from the fuel using EMTS. Defendant SCHNABEL thereafter fraudulently sold and caused GRC to sell the invalid RINs to Credit Buyer.

Overt Acts

In furtherance of the conspiracy, and to accomplish the objectives of the conspiracy, Defendant SCHNABEL and others did commit the following overt acts, among others, in the Southern District of Ohio and elsewhere:

Overt Act 1 On or about September 30, 2011, at the direction of Jalal, an employee of Unity sent Defendant SCHNABEL a contract documenting Unity's purchase of "Rinless Biodiesel B99." Shortly thereafter, the same employee sent Defendant SCHNABEL another email stating, "Greg, Some changes were made to the purchase contract. If any questions please let us know." Attached to the email was a contract for "Rinless B99 Biomass Based HO [heating oil] Blend Stock."

Overt Act 2 On or about October 18, 2011, Defendant SCHNABEL sent Malek Jalal an email stating "Trucks aside, I am now prepared to increase volume very aggressively."

Overt Act 3 Between on or about October 18, 2011, and on or about February 13, 2012, Defendant SCHNABEL purchased and caused GRC to purchase approximately 240 truckloads of fuel from Chieftain to be sold to Unity, and arranged for its transportation to Unity in Newark, New Jersey, from Logan, Ohio. Each act constituted a separate overt act in furtherance of the conspiracy.

Overt Act 4 Between on or about October 18, 2011, and on or about February 13, 2012, Defendant SCHNABEL purchased and caused GRC to purchase approximately

280 truckloads of RVOB from Unity, and arranged for its transportation to Chieftain in Logan, Ohio. Each act constituted a separate overt act in furtherance of the conspiracy.

COUNT 3
Conspiracy to Commit Criminal Offenses
18 U.S.C. § 371

44. Paragraphs 1 through 25 and 27 through 36 of this Information are realleged and expressly incorporated herein as if set out in full.

45. Beginning on or about March 1, 2012, and continuing thereafter until a date unknown to the United States, but no earlier than March 31, 2015, in the Southern District of Ohio and elsewhere, Defendant GREGORY SCHNABEL did knowingly and willfully combine, conspire, confederate, and agree with others known and unknown to the United States, including Fred Witmer, to commit offenses against the United States and to defraud the United States and agencies thereof, specifically:

a. to make and present claims, specifically claims for the Alternative Fuel Credit, upon and against the United States and the IRS, knowing such claims to be false, fictitious, and fraudulent, in violation of 18 U.S.C. § 287;

b. to transmit and cause to be transmitted by means of wire and radio communication in interstate and foreign commerce, writings, signs, signals, pictures, and sounds for the purpose of executing a scheme and artifice to defraud, and for obtaining money and property by means of false and fraudulent pretenses, representations, and promises, in violation of 18 U.S.C. § 1343.

Means and Methods of the Conspiracy

Among the means and methods employed by Defendant SCHNABEL and his co-conspirators to carry out the conspiracy and effect its unlawful objects were the following:

Triton RINs

46. It was part of the conspiracy that Defendant SCHNABEL purchased and caused GRC to purchase Triton's proprietary "Gen2 Renewable Diesel" ("Gen2") with assigned RINs. Gen2 could be used to generate RINs if, among other requirements, it was sold for use as a transportation fuel.

47. It was part of the conspiracy that Defendant SCHNABEL separated and caused others to separate the RINs generated by Triton on its Gen2 fuel.

48. It was part of the conspiracy that, after separating the RINs, Defendant SCHNABEL sold and caused GRC to sell the Gen2 fuel for uses other than transportation, including to Unity where it was blended with other material and sold back to GRC and Gristle, and to Ohio Blender in Hamilton County, Ohio, where it was resold for power generation, export, and other non-transportation applications.

49. It was part of the conspiracy that Defendant SCHNABEL fraudulently sold the RINs generated on the Gen2 fuel to Credit Buyer, falsely representing to Credit Buyer that these RINs had been sold by GRC for use in transportation.

Triton Tax Credits

50. Following the passage of the American Taxpayer Relief Act of 2012, Defendant SCHNABEL worked in concert with Triton Energy, Fred Witmer, and others known and unknown to the United States, to claim tax credits—specifically the $.50/gallon AFC—for Gen2 fuel sold to GRC. The AFC requires the claimant to have used the fuel in (or

sold the fuel for use in) motor vehicles or motorboats. At the time, Triton was not registered to claim AF Credits.

51. It was part of the conspiracy that the parties created a series of contracts and invoices to falsely show that fuel previously sold to GRC had instead been sold by Triton to Gen-X.

52. It was part of the conspiracy that Gen-X requested and received AF Credits for this fuel. This money was then shared with Triton and GRC pursuant to false invoices.

53. It was part of the conspiracy that Triton, after receiving its registration, requested and received AF Credits for loads of fuel sold to GRC for non-qualifying uses.

Overt Acts

In furtherance of the conspiracy, and to accomplish the objectives of the conspiracy, Defendant SCHNABEL and others known and unknown to the United States, did commit the following overt acts, among others, in the Southern District of Ohio and elsewhere:

Overt Act 1 On or about March 1, 2012, Fred Witmer sent Defendant SCHNABEL an email with a "proposed PTD [product transfer document] attached."

Overt Act 2 On or about March 12, 2012, Fred Witmer sent Defendant SCHNABEL an email describing their agreement.

Overt Act 3 Between on or about March 13, 2012, and continuing until no earlier than March 31, 2015, Triton sold GRC hundreds of truckloads of Gen2 fuel with RINs attached. Each purchase constituted a separate overt act in furtherance of the conspiracy.

Overt Act 4 Between on or about March 15, 2012, and continuing until no earlier than March 31, 2015, Defendant SCHNABEL used and caused others to use EMTS to

separate the RINs from the underlying fuel. Each separation constituted a separate overt act in furtherance of the conspiracy.

Overt Act 5 Between on or about March 15, 2012, and continuing until no earlier than June 30, 2014, Defendant SCHNABEL sold and caused GRC to sell Gen2 fuel for a variety of non-transportation uses and for export, including:

a. Between on or about August 16, 2013, and on or about April 18, 2014, Defendant SCHNABEL sold and caused GRC to sell approximately 102 truckloads of Gen2 to Ohio Blender in Hamilton County, Ohio. Defendant SCHNABEL arranged for the truckloads of Gen2 to be shipped to Ohio Blender's facility in Hamilton County, Ohio. Each act constituted a separate overt act in furtherance of the conspiracy.

Overt Act 6 Defendant SCHNABEL fraudulently sold and caused GRC to fraudulently sell the RINs to Credit Buyer. Each sale constituted a separate overt act in furtherance of the conspiracy.

Overt Act 7 On or about May 23, 2013, Triton sent a Form 8849 to the IRS, requesting AF Credits totaling $2,470,001.00, representing 4,940,002 gallons of fuel sold to GRC between January 1, 2012, and September 30, 2012.

Overt Act 8 On or about July 9, 2013, Defendant SCHNABEL caused GRC to send an invoice via email to Gary Jury (Invoice # FEEDTR70913) for $408,108.00. The invoice falsely requested "Payment for exceeding feedstock requirements for 18 month period ending June 30, 2013."

Overt Act 9 On or about July 10, 2013, Defendant SCHNABEL caused GRC to send Triton an invoice via email (Invoice # FEEDTR71014) for $437,392.00, with Defendant SCHNABEL copied. The invoice was from Gristle, and falsely requested

"Payment for exceeding feedstock requirements for 18 month period ending June 30, 2013."

Overt Act 10 On or about July 10, 2013, Defendant SCHNABEL caused GRC to send Triton an invoice via email (Invoice # FEEDTR71115) for $397,500.50. The invoice was from Gristle, and falsely requested "Payment for exceeding feedstock requirements for 18 month period ending June 30, 2013."

All of which is a violation of 18, United States Code, Section 371.

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To: Starfield, Lawrence[Starfield.Lawrence@epa.gov]
From: Bodine, Susan
Sent: Mon 10/2/2017 8:02:12 PM
Subject: VI drinking water
FEMA SLB - MARIA IRMA and HARVEY 0500 ET - 1 Oct 17 (Phase 1 NOC 0664-17....pdf
nrf-esf-03.pdf

Ex. 5 - Attorney Client

From: EOC Situation Unit
Sent: Sunday, October 1, 2017 1:21 PM
To: OLEM OEM ALL EOC Positions <OLEM_OEM_ALL_EOC_Positions@epa.gov>; OLEM OEM EOC Spot Report <OLEMOEMEOCSpotReport@epa.gov>; FEMA-NRCC-ohul <FEMA-NRCC-ohul@fema.dhs.gov>; FEMA-NRCC-ohs <FEMA-NRCC-ohs@fema.dhs.gov>; PCC Harvey <PCC_Harvey@epa.gov>
Subject: Hurricanes Irma and Maria Management Report October 1

Attached and copied below, please find the HQ EOC Management Report for EPA's Response to Hurricanes Irma and Maria. The HQ EOC has been issuing this report daily since October 1. As response efforts wind down the issuance frequency will be amended as appropriate.

If you have any questions, please contact the EOC manager at 202-250-8903 or the Deputy EOC Manager 202-250-8904. Thank you.

Mark Baldwin, Emma Zinsmeister

Situation Unit

EOC_Situation_Unit@epa.gov

202-250-8918

For Internal Use Only/For Official Use Only

October 2, 2017 1310 EDT

HURRICANES IRMA AND MARIA MANAGEMENT REPORT

Information contained in this report reflects HQ and regional reporting from the most recently completed operational period as well as other reports provided by HQ, regional and interagency sources.

National Incident Management Objectives

Objective 1: Ensure that health and safety of the EPA responders is considered at all times.

Objective 2: Establish an incident management structure and processes employing the Incident Command System to enable effective overall management of the event with deployment of resources (staff and equipment) in a rapid, aggressive and well-coordinated manner.

Objective 3: Ensure prompt Review and Processing of Fuel Waiver requests.

Objective 4: Prepare for and provide Rapid Assessment of Industrial facilities as requested by the State or under EPA's statutory program responsibilities for CERCLA Superfund, RMP and FRP facilities. Working with our state partners, contact industrial sources within the impacted area to determine their operational status and determine what support can be provided with the monitoring of the start-up of industrial sources.

Objective 5: Prepare for and provide Rapid Assessment & Technical Assistance Drinking Water & Wastewater facilities as requested by the State or local government. EPA will support our state partners in contacting drinking water and waste water systems.

Objective 6: Prepare a Sustained Response Plan that outlines the resource and equipment needs for a long duration response.

Objective 7: Activate the Agency's Crisis Communication Plan to ensure effective and efficient coordination of all incident communications.

Objective 8: Encourage a collaborative federalism approach, where national, state and local governments interact cooperatively and collectively to solve common problems.

Objective 9: Begin Agency internal and external coordination under the National Disaster Recovery Framework regarding Recovery Support Functions in which EPA is likely to be involved.

Executive Summary

Region 2

- Deep tropical moisture is expected to bring numerous showers and thunderstorms to Puerto Rico and the U.S. Virgin Islands through tonight. The potential exists for frequent cloud to ground lightning and heavy rainfall which may cause additional flash flooding especially for areas that remain saturated from recent heavy rainfall. About 2-3 inches of rain have fallen across Puerto Rico since late Friday; additional rainfall amounts of 1-3 inches are possible, with 3 to 5 inches in localized areas thru Monday morning, and a flash flood watch continues for Puerto Rico and the US Virgin Islands (thru late Sunday). R2 has provided safety advisories regarding the risks of potential flash floods, mud slides, and driving hazards that may impact personnel safety and operations.
- According to the FEMA report issued September 30th on federal actions to date in response to Hurricane Maria, the Guajataca Dam in PR has lost another 45-50' of spillway; current estimates indicate 55% lost on September 29th, an increase of 11% from September 24th. If the pool level is not lowered (eliminating the spilling over the spillway) the dam will likely be compromised within five days. USACE has prioritized response actions, and an evacuation order remains in effect.
- The threat for heavy rainfall also exists over southern/eastern Florida including the Florida Keys over the next few days which could also bring localized flash flooding. Moderate to major Tidal concerns will be an issue along the Southeast coast through Tuesday. Heavy rain showers and embedded strong thunderstorms (with strong turbulence and wind shear), stretching from the eastern Gulf of Mexico to well east of Florida, could delay or divert aircraft flying to and from Puerto Rican theater from Atlanta, Miami and Houston.
- The CEPD Guaynabo will officially open on Monday, October 2nd. The CEPD office in Vieques, PR sustained minimal damage; it has generator power (though fuel supply is limited), but no water service. The CEPD office in St. Thomas, has been assessed to be in

the same condition as post Hurricane Irma.

- In PR, between 50-55% of the (Puerto Rico Aqueducts Sewer Authority) PRASA-served population are without access to drinking water service. PR has an island wide boil water order. A list of all impacted DW/WW facilities is being prepared to facilitate distribution of generators and/or other repair equipment.

- USVI is building additional water storage:

  - St. Croix: The Concordia potable water pump station is online and the west end of the island was expected to gain water storage as early as September 29th. The Kingshill tank was repaired and should begin to build storage and the west end of the island should begin to receive potable water service. The island has three-days emergency water supply.

- St. Thomas: Potable water service restored to all communities in the east end of the island and two districts. The island has three days emergency water supply.
- St. John: Potable water service is available throughout the island. The island has four days emergency water supply.

- On October 1st, R2 Assessment teams comprised of OSCs, RPMs, technical assistance contractors, public affairs officers and security will deploy to PR.

Region 4

- The current schedule for management reports from R4 is Tuesday and Friday.
- A Mission Assignment was approved, providing funding for EPA Landfill Specialty Teams through October 3. Two R4 landfill technical specialists mobilized on September 27th.
- Four EPA field teams composed of OSCs, Superfund RPMs, and contractors deployed to Florida on September 25th, and have established a forward command center in Marathon Key.
- Current EPA operations consist of identification of staging areas for orphan containers, hazardous waste, and fuel and oil recovered from vessels. The Key West-Marathon Airport has been established as the initial staging area.
- On September 28th, EPA completed all 592 of the assessments of non-community public water systems assigned by FDEP.
- A new Mission Assignment (MA) for $10,000,000 to continue the EPA ESF-10 Mission through November has been approved.

Regional Mission Assignments and Funding

EPA Region	Mission Assignment Number	Funding Amount	Description of Assignment
			Removal, cleanup and disposal of oil & hazmat; coll

Region 2	4339DR-PR-EOA-03		and dispose of HHW; monitor immediate threats to public H&S and the environment in PR
	VI-17090102-EPA-01	$10,000	ESF-10 support of the FEMA's RRCC in Colts Neck NJ
	4335DR-VI-EPA-01	$100,000	Activate EPA to FEMA R2 RRC in Colts Neck, NJ t support FEMA and FEMA NRCC.
	4335DR-VI-EPA-02	$1,008,000	To perform assessment of oil and hazardous material releases, contaminated debris and other environment events in USVI
	4335DR-VI-EPA-04	$10,000,000	Conduct oil and hazardous materials field operations including cleanup and disposal of hazardous materia and oil, and response to orphaned containers in order mitigate actual and potential threats to public health and safety.
	4335DR-VI-EPA-06	$2,000,000	EPA provides support preparing for site-specific platforms for situational awareness; environmental d management; operational deployment plans; documentation of assessment activities and results; resource and financial tracking, accountability and c documentation.
	PR-17090102-EPA-01	$20,000	Activate EPA to FEMA R2 RRC and other locations necessary for PR (pre-landfall)
	3384EM-PR-EPA-01	$75,000	Activate EPA to FEMA R2 RRCC, EPA REOC, Sta EOC, JFO, PDA, and RNA Teams and other coordination venues to support FEMA response in P
	4336DR-PR-EPA-01	$100,000	Activate EPA to FEMA R2 RRCC and other EOCs
	4336DR-PR-EPA-02	$1,008,000	To perform assessment and reconnaissance of oil and hazardous materials release, contaminated debris and storm impacted infrastructure which may pose a threat to federal responders as well as environmental harm in PR.
Region 4	4337DR-FL-EPA-05	$90,000	Activation for appropriate EPA personnel to perform the functions of ESF 10 w/ RRCC, IOF, JFO, FEMA Incident Management Assistance Team (IMAT), Preliminary Damage Assessment (PDA) Team, or other teams and locations, at the direction and coordination of FEMA.
	4337DR-FL-EPA-03	$525,000	Activate Federal Hazardous Assessment Response Team w/resource support to conduct assessments at hazardous substances within R4
		$9,000,000	Provide oil and hazardous material field response in

	4337DR-FL-EPA-04		support of FEMA response operations providing specialized expertise, conducting damage assessmen of oil/hazmat waste impact evaluating hazards; and/c response, removal, or disposal of: actual and potentia oil discharges, and releases of hazardous substances, pollutants and contaminants and remove pollutants from vessels in or upon navigable waters and adjoini shorelines.
	4337DR-FL-EPA-07	$675,000	Provide funding for EPA Landfill Specialty Teams through October 3.
	4337DR-FL-USGC-05	$10,000,000	EPA will provide oil, hazardous substances, pollutan and contaminants field response and recovery action in support of FEMA response and recovery operatio
Total		**$44,611,000.00**	

Number of Regional Personnel Involved in Response

Type	R2 Personnel	R4 Personnel	Total Regional Personnel
EPA	99	27	126
Contractors	24	11	35
Totals	123	38	157

-

Region 2 Significant Activities

- In PR, between 50-55% of the PRASA-served population are without access to drinking water service. PR has an island wide boil water order. A list of all impacted DW/WW facilities is being prepared to facilitate distribution of generators and/or other repair equipment.
- USVI is building additional water storage:

    - St. Croix: The Concordia potable water pump station is online and the west end of the island was expected to gain water storage as early as September 29th. The Kingshill tank was repaired and should begin to build storage and the west end of the island should begin to receive potable water service. The island has three-days emergency water supply.

- St. Thomas: Potable water service restored to all communities in the east end of the island and two districts. The island has three days emergency water supply.
- St. John: Potable water service is available throughout the island. The island has four days emergency water supply.

- On September 29th, EPA DW assessment and sampling teams collected 12 drinking water

samples in St. Croix, they anticipated results by the end of the day Saturday, September 30th.

- As reported in R2's October 1st Management Report, EPA met with WAPA personnel to discuss oil spill issues near a WAPA drinking water intake in Krum Bay in St. Thomas. The oil spill is originating from sunken and partially sunken vessels in Krum Bay. WAPA has boomed off the drinking water intake and collects samples of the drinking water supply on a regular basis. To date (October 1st), sample analysis has indicated the water system has not been impacted by the oil spill. EPA is meeting with the USCG to discuss further prevention and remediation strategies for the mitigation of the oil spill.

- R2 is assessing Superfund and oil sites in PR and USVI as part of R2's redeployment plan. In the USVI, on September 29th, Vega Baja Solid Waste Disposal site was not able to be visited due to the significant road damage and debris. The team could not access the facility. On September 30th, the teams were to conduct site surveys and surveillance of the Upjohn Facility, Vega Alta Public Supply Well, and Juncos Landfill. The results of the September 30th work are pending.

Superfund and Oil Sites

- R2 estimates that there are 1,700 active and temporarily closed underground storage tank (USTs) facilities in PR.
- There are 23 Superfund and oil sites (20 in PR and 3 in USVI). EPA has visited two NPL sites and one oil site. EPA is prioritizing the remaining NPL sites and have identified Papelera, Vega Baja, Juncos, Vega Alta, and Upjohn as first priorities. The table below lists sites where assessments have been completed or completed a phase of assessment.

SUPERFUND SITES (NPL, Removal and Oil)						
Site	**Type**	**Phase 1:**	**Phase 2**		**Phase 3**	**All Phases Completed**
		Post-Storm Assessment	**Site Inspection Needed**	**Inspected**	**Additional Response Action**	
Arecibo Battery Recycling Corp.	Removal & NPL*	09/22/2017	No	09/22/2017	No	09/22/2017
Corozal Battery	Removal & NPL*	09/24/2017	No	09/24/2017	No	09/24/2017
Puma Caribe (CAPECO)	Oil Response	09/21/2017	No	09/25/2017	No	09/25/2017
Papelera	NPL	09/29/2017	No	09/29/2017	No	09/29/2017

Puertoriquena,
Inc.
* These are Sites that have both a Removal and Remedial program action.
Only one assessment will be conducted per Site.

Puerto Rico

Facility Type	Sites Identified	Pre-Storm Remote Assessment	Post Storm Remote Assessment	Post Storm Field Assessment	Follow-up Action Required
RMP	56	56*	44^	0	0
FRP	22	22*	10^	2	2
SPCC (non-FRP)	232#	232#*	4^	0	0
Total	310#	310#	58^	2	2
* Pre-Hurricane email requested facilities to self-identify any pre-existing compromised conditions (construction at process areas, tank maintenance, etc.). No facilities reported pre-existing compromised conditions.					
^ Based on Post-Hurricane oil spill/chemical release/damage assessment email and phone calls.					
# There is no SPCC submission or de-registration requirement. This number reflects the number of known non-FRP SPCC facilities indicated as "active" in the Oil Database.					

U.S. Virgin Islands

Facility Type	Sites Identified	Pre-Storm Assessment	Post Storm Assessment	Post Storm Field Assessment	Follow-up Action Required
RMP	1	1*	1^	0	0
FRP	6	6*	5^	0	0
SPCC (non-FRP)	57#	57#*	1^	0	0
Total	64#	64#	7^	0	0
* Pre-Hurricane email requested facilities to self-identify any pre-existing compromised conditions (construction at process areas, tank maintenance, etc.). No facilities reported pre-existing compromised conditions.					
^ Based on Post-Hurricane oil spill/chemical release/damage assessment email and phone calls.					
# There is no SPCC submission no de-registration requirement. This number reflects the number of known non-FRP SPCC facilities indicated as "active" in the Oil Database.					

Drinking Water / Wastewater (DW/WW) Assessments

USVI

- The waste water treatment plants on all three islands are operational but have limited pumping capacity due to lack of commercial power. The DW system is gaining additional storage on all three islands.
- EPA is working to procure a contract with Ocean Systems for sampling and lab analysis on St. Croix, St. Thomas, and St. John. The Ocean Systems lab on St. Thomas is functioning under generator power. The Ocean Systems lab on St. Croix is not operational due to lack of power; EPA has requested and is waiting for FEMA to provide a generator for this facility. Until a generator is secured for the St. Croix lab, EPA will continue to analyze the collected water samples on St. Croix utilizing a Colilert field test kit for the presence/absence of bacteria.

St. Croix

- Of the 24 drinking water samples collected on September 28th, 10 samples indicated the presence of E. coli. EPA will continue coordinating with DPNR to ensure disinfection measures are taken at all affected locations.
- EPA collected 24 drinking water samples on September 28th, which are being analyzed for E. coli and total coliform. The results were anticipated to be completed by the end of the day September 30th.
- USVI Water and Power Authority (WAPA) is reporting they are operating at 1/3 of typical drinking water distribution capacity on St. Croix. WAPA collected and analyzed 20 samples from WAPA operated drinking systems. All results indicate no issues with the drinking water quality from WAPA systems.
- The Army National Guard has supplied four reverse osmosis units. The RO units are currently located on St. Croix however, the units are not currently deployed and it is unclear when and where the units may be utilized.

Public Water System Testing on St. Croix

Total Public Water Systems on St Croix sampled to date	Total number of samples to date	Total systems assessed to date	Total number of systems resampled after positive E. coli	Total number of systems with negative E. coli results after resampling
59	68	89	12	12

St. Thomas

- On St. Thomas, EPA will conduct fixed facility assessments through the weekend and will coordinate with DPNR to begin drinking water sampling on Monday, 10/2/2017. The samples will be analyzed at the St. Thomas Ocean Systems Lab for coliform.
- As reported in R2's October 1st Management Report, EPA met with WAPA personnel to discuss oil spill issues near a WAPA drinking water intake in Krum Bay. The oil spill is originating from sunken and partially sunken vessels in Krum Bay. WAPA has boomed off the drinking water intake and collects samples of the drinking water supply on a regular basis. To date (October 1st), sample analysis has indicated the water system has not been impacted by the oil spill. EPA is meeting with the USCG to discuss further prevention and remediation strategies for the mitigation of the oil spill.

On PR

- Most PRASA WW facilities are not operational, and those facilities that are operations will need more fuel to maintain power generators.
- CEPD DW and WW section conducted assessments at 3 PRASA water quality laboratories. Two of the three (Arecibo & Caguas) were found to have significant storm damage.
- EPA has received several requests for DW/WW analytical and assessment and sampling support from USACE, PRASA, and PRDOH. REOC and IOF staff are preparing documentation to support the eventual Mission Assignment that will cover all of these requests.
- FEMA, USACE, EPA, and DOH met on September 29th to coordinate federal support to non-PRASA drinking water facilities. In Puerto Rico, there are 297 independent private and community water treatment systems that serve approximately 4% of the population. One of the recommendations is the deployment of 8 Assessment Teams starting Monday, October 2. The first assessment visits will be to the Non-PRASA systems in the Municipality of Caguas.
- Out of PRASA's 52 facilities, 9 are operational, 19 are non-operational, and 24 have an unknown operational status.
- EPA has received requests of support from PR's Environmental Quality Board (EQB) to small oil spills. EQB has used their contractors to deploy booms and pads to control these spills.

Drinking Water and Wastewater Assessments (as of September 29th)		
Assessment Types	**Daily Assessments**	**Total Assessments**
On-Site DW Assessments	4	4
On-Site WW Assessments	8	8

PR Air Monitoring Activities

1. EQB is planning to conduct an assessment on the conditions of the ambient air monitoring network. The network was taken offline prior to Hurricane Maria landfall. There is no update or information on the status or damages. They will staff an assessment team once their employees are able to return.

Debris Recovery

On PR

- EPA met with FEMA, USACE, and PR's EQB and Solid Waste Management Authority (SWMA), and private contractors to discuss establishment of 6 regional debris collection and processing centers. Contractors propose to separate and manage clean vegetative materials, mixed wastes, construction and debris, wet debris, and household hazardous waste. They are proposing to use thermal reduction system (box burners) in one of the centers and are requesting a waiver from EQB.
- EPA will have a meeting October 1 to discuss the strategy for the management of hazardous wastes and household hazardous wastes.
- Municipalities are informing that large amounts of clandestine dumps have been established in their communities. They are concerned with public health and environmental impacts.

On USVI

- In St. Croix, an EPA OSC took part in the daily Debris Management meetings. EPA will advise on air monitoring and/or sampling protocols associated with the burning of debris. They are continuing their work to develop a debris management plan.
- FEMA has also indicated that EPA may be requested to assist with medical waste issues resulting from the re-establishment of medical facilities on St. Croix and St. Thomas.

Region 4 Significant Activities

Due to the new reporting schedule, this section will not be updated until Tuesday, October 3rd.

- The Key Largo Water Team completed FDEP-assigned assessments and met with utility personnel regarding the operational status of their drinking water system. The Naples Water Team completed FDEP-assigned projects with visits to two public water systems and a wastewater system. Pending receipt of new assignments, EPA Water Team members demobilized on September 28th.
- On September 26th, R4 was released from staffing the ESF-10 Desk at the State Emergency Operations Center.

Orphan Container and Pollution Response

- All containers previously collected in Collier County by the EPA Orphan Container Group were disposed by Collier County's contractor as of September 29th.

- From September 27-29, EPA teams conducted land-based assessments in the inland zone in the Marathon and Islamorada areas of the Keys. The Key West-Marathon Airport has been established as the initial container staging area.

EPA Container Assessment Targets (Identified to Date—Florida Keys)

USCG Sector	Targets Identified/Assessed	Targets Completed*	Targets Remaining
Key West	62	0	62

*Removed or determined no further action necessary

Drinking Water / Wastewater (DW/WW) Assessments

- ESF-3 was tasked to provide technical assistance to the USACE for water infrastructure assessment. Field and remote assessment activities have been completed.
- The USACE and the Water Protection Division has completed their field mission of assisting FDEP in assessing the status of drinking water and wastewater facilities. The Facility Assessment Support Team (FAST) completed 592 assessments of the 1,112 non-community drinking water systems assigned to the team by FDEP.

Status of Community Drinking Water Systems (CWS) and Total Population Served in Florida

	Large CWS (Over 3,300)		Small CWS (under 3,300)	
	# Systems	Population Served	# Systems	Population Served
Operational:	395	19,210,964	1,192	684,223
Partially Operational:	1	77,500	14	15,084
Non Operational:	0	0	3	255
Unknown:	0	0	34	10,916
Totals:	396	19,288,464	1,243	710,478

Boil Water Notices 58 Active

Number and Status of POTWs within Florida

	NPDES Permitted Facilities		
	POTW	Non-POTW (Industrial)	State Permits (Non-NPDES)
Operational:	143	242	1,766
Partially Operational:	2	1	33

Non Operational:	0	0	88
Unknown:	0	0	121
Totals:	145	243	2,008

Debris Recovery

- An MA providing funding for EPA Landfill Specialty Teams (LST) through November has been approved. Two Landfill Technical Specialists from RCRD mobilized to the Unified Command Post in Miami on September 27th and will provide debris technical assistance to Monroe County and FDEP. LST activities will be limited to technical advice and evaluation. The Team will not be involved in the physical collection or disposal of household hazardous waste.
- The LST will work with the FDEP Marathon Branch (MB) staff on implementing the use of FDEP's Disaster Debris Management Site Checklist. The LST and MB staff will cross-train for the next few days and plan to visit as many Disaster Debris Management Sites as possible.

EPA Headquarters Significant Activities

- The HQ EOC is activated to Level 1 in support of EPA Region 2 and Region 4 responses to Maria and Irma. The HQ EOC is coordinating on several levels with EPA R2, EPA R4, and other Federal agencies. The HQ EOC has deployed personnel to the FEMA NRCC to staff the ESF #10 desk. EPA Senior Management that comprise the Policy Coordination Committee (PCC) developed and issued senior management objectives that form the basis of field strategy and tactics in response to Maria and Irma.

Personnel	AO	OAR	OARM	OCFO	OCSPP	OECA	OEI	OGC	OLEM	ORD	OW	PIO	ATSDR Totals
Employees	0	2	0	0	1	0	0	0	3	0	1	1	0	8
Contractors	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**4**	**0**	**1**	**1**	**0**	**9**

Other EPA Activities

OECA Civil/CID

- Accumulation of Hazardous Waste On-site Waiver

- On September 29th, R2 granted a 30-day extension of the 90-day limit on the accumulation of hazardous waste on-site to Johnson & Johnson and Lilly del Caribe Inc. in PR. The two companies are large quantity generators and have informed EPA that because of impacts from the hurricanes, it is currently not possible to make hazardous waste shipments out of PR. It is possible that similar requests will be received from other companies.

- No Action Assurances

  - On September 27th OECA issued an amended NAA concerning the importation, sale, donation or distribution of mobile power generators in PR to increase the number of generators available for use during the recovery from the devastation of Hurricane Maria.
  - On September 27th OECA issued an NAA concerning the importation, sale, donation or distribution of mobile power generators in the USVI.
  - On September 21st, OECA issued three NAAs, extending Florida's existing NAAs for truck loading, vapor recovery, and roof landing until October 6th. Additionally, they issued an extension to the waiver for red-dyed diesel fuel until October 6th.

- Orders

  - On September 23rd, R2 issued an emergency order to FEMA and DOD to provide drinking water treatment services on the USVI. The Order terminates on October 8th. FEMA and DOD are working to deploy four treatment units to St. Croix.
  - On September 26th, EPA waived diesel fuel requirements to minimize and prevent disruptions in the supply of diesel fuel for mobile non-road generators and pumps used for emergency purposes in PR effective immediately through October 15th.
  - EPA HQ, Region 4 and the State of Florida are working to evaluate and respond to additional fuel waiver extension requests.

Communications

- R2, R4, and HQ activities related to Irma and Maria response efforts are available at: http://www.epa.gov/hurricane-irma and www.epa.gov/hurricane-maria, respectively.
- The HQ EOC Public Information Office continues to work with OLEM to develop fact sheets to inform people about issues related to returning after the storms. Topics covered include: household hazardous waste, construction debris, etc.
- On September 30th, the HQ PIO issued a press release providing updates on the recovery efforts for Hurricanes Irma and Maria in PR and USVI. The press release notes that "since the events of Hurricane Irma and Maria, EPA has issued grants to Puerto Rico and the U.S. Virgin Islands under an expedited process to deliver funds more efficiently. The grants awarded to Puerto Rico total more than $2.3 million and the grants awarded to the U.S. Virgin Islands total nearly $6.2 million."
- Bi-lingual Community Involvement Coordinators are positioned for deployment to Puerto Rico, as well as community relations support for the USVI assessment and cleanup teams.

- A PIO is scheduled to deploy to Puerto Rico on Monday, October 2nd. R2 is continuing to identify personnel and options for deployment of additional CICs and PIOs through October to support ground and REOC operations.

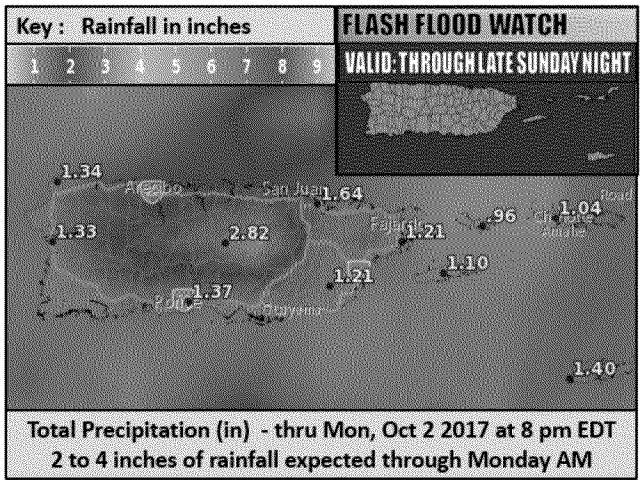
Congressional Inquiries

- Staff from Congressman Brian Mast contacted EPA HQ to inquire whether EPA field personnel could meet with the Congressman this week to discuss Irma related water quality issues. HQ forwarded the request to the Regional Administrator's office. Originally scheduled for September 27th, this meeting is being rescheduled.
- As reported by R2's October 1st Management Report, EPA has responded to a request that FEMA received from a Vermont Congressman for information on the safety and distribution of water from 4 cisterns on Vieques. EPA provided guidance from CDC and EPA on cistern disinfection and making drinking water safe following natural disaster.

Senior Leadership Briefing and Recovery Snapshots
Tropical Storm Maria and Post-Tropical Cyclones Irma and Harvey
Sunday, October 1, 2017 (5:00 a.m. EDT)
Updates in Blue

Current Situation:

Deep tropical moisture is expected to bring numerous showers and thunderstorms to Puerto Rico and the U.S. Virgin Islands through tonight. The potential exists for frequent cloud to ground lightning and heavy rainfall which may cause additional flash flooding especially for areas that remain saturated from recent heavy rainfall. About 2-3 inches of rain have fallen across Puerto Rico since late Friday; additional rainfall amounts of 1-3 inches are possible, with 3 to 5 inches in localized areas thru Monday morning, and a flash flood watch continues for Puerto Rico and the US Virgin Islands (thru late Sunday). There will be a period of light rain to around noon today, with a more intense period from mid-afternoon to early morning hours of Monday.



Total Precipitation (in) - thru Mon, Oct 2 2017 at 8 pm EDT
2 to 4 inches of rainfall expected through Monday AM

The threat for heavy rainfall also exists over southern/eastern Florida including the Florida Keys over the next few days which could also bring localized flash flooding. Moderate to major Tidal concerns will be an issue along the Southeast coast through Tuesday. Heavy rain showers and embedded strong thunderstorms (with strong turbulence and wind shear), stretching from the eastern Gulf of Mexico to well east of Florida, could delay or divert aircraft flying to and from Puerto Rican theater from Atlanta, Miami and Houston. *(NOAA Update, October 1, 2017, 5:00 a.m. EDT)*

Impact Summary:

Population Impacts						
Territory	**Confirmed Fatalities**	**Shelters / Population***	**Customer Power Outages**	**Hospitals**	**Evacuations and Curfews**	**Other**
PR	PR Director of Public Safety confirmed 16 fatalities	Shelters: 146 (-13) Pop: 10,056 (-1,270)	5% (+1%) of customers have electricity Estimate 20% of transmission towers need to be replaced	One hospital fully operational; 62 hospitals degraded, two closed, four unknown Ten hospitals back on electrical grid with intermittent generator support VA hospitals: One open, five open with walk-ins, three closed	Curfew in effect from 9:00 p.m. to 5:00 a.m. first responders and medical personnel exempt	58 of 68 government buildings closed 49% of grocery and big box stores open
USVI	Media reports one fatality	USVI Shelters: 7 Pop: 555 (-35) St. Thomas: Shelters: 2 Pop: 247 (+3) St. John: Shelters: 2 Pop: 24 (+2) St. Croix: Shelters: 3 Pop: 284 (-41)	St. Thomas: 19,574 (99%) St. John: 2,893 (100%) St. Croix: 25,274 (90%)	Schneider Regional Medical Center on St. Thomas and Governor Juan Luis on St. Croix condemned St. Croix requested mobile medical facility equivalent to asset on St. Thomas (Area Medical Support Company); DOD working to fulfill request VA hospitals: All three closed	Curfew in place from 6:00 p.m. to 8:00 a.m. in St. Thomas, St. John, and Water Island St. Croix curfew in place from 6:00 p.m. to 10:00 a.m.	Planning for public schools to reopen October 9 15 of 19 government buildings closed
As of:	*September 29 7:55 p.m. EDT*	*October 1 4:08 a.m. EDT*	*September 30 12:00 p.m. EDT*	*October 1 1:39 a.m. EDT*	*September 30 3:35 p.m. EDT*	*September 30 8:00 p.m. EDT*

(ESF-5, ESF-6, ESF-7, ESF-8, Listas de Hospitales, ESF-12, HHS SitRep, OHA, PREMA, Region II)

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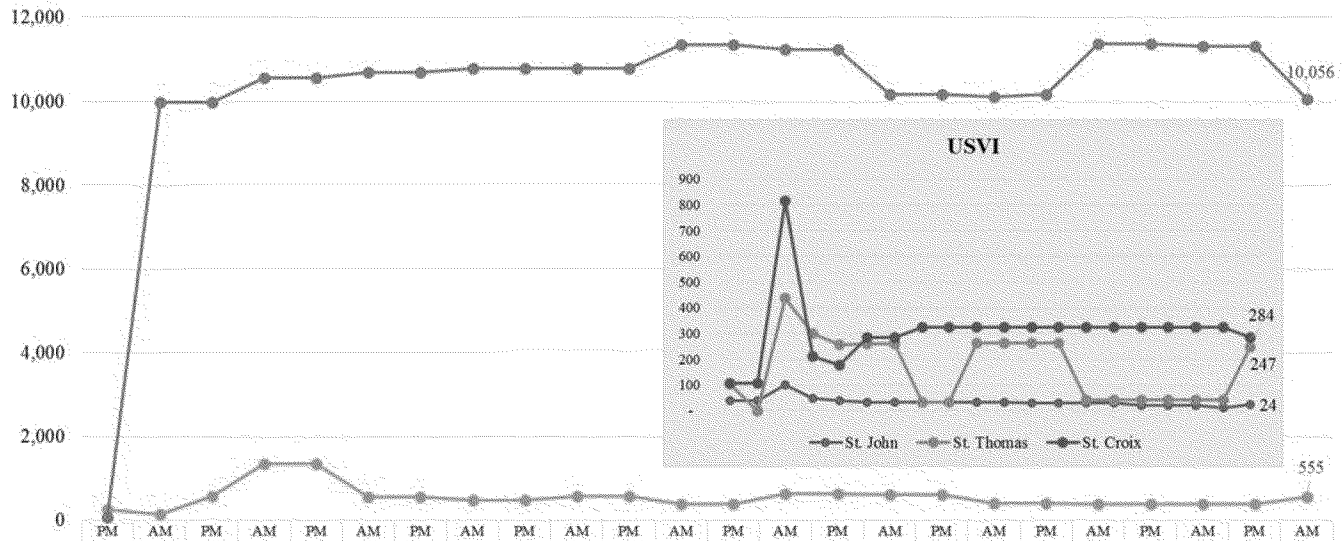
Shelter Population
Total: 10,611 (-1,092)

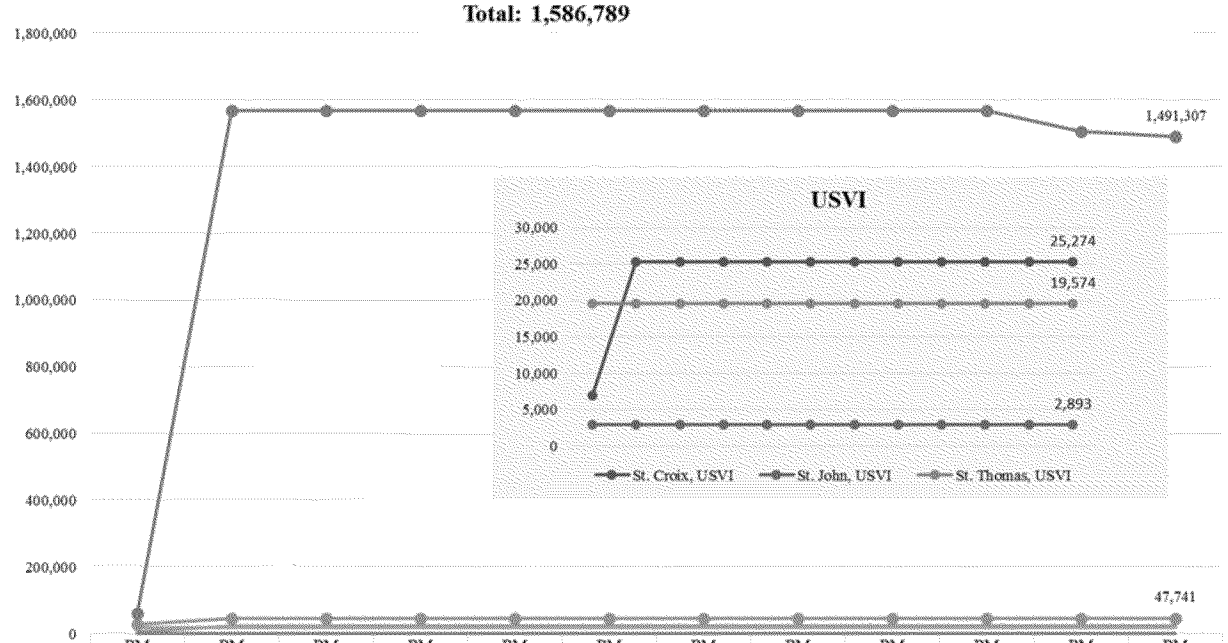


	PM 9/19/17	AM 9/20/17	PM 9/20/17	AM 9/21/17	PM 9/21/17	AM 9/22/17	PM 9/22/17	AM 9/23/17	PM 9/23/17	AM 9/24/17	PM 9/24/17	AM 9/25/17	PM 9/25/17	AM 9/26/17	PM 9/26/17	AM 9/27/17	PM 9/27/17	AM 9/28/17	PM 9/28/17	AM 9/29/17	PM 9/29/17	AM 9/30/17	PM 9/30/17	AM 10/1/17
USVI	248	145	574	1,353	1,353	558	558	471	471	575	575	391	391	621	621	618	618	396	396	389	389	389	377	555
Puerto Rico	58	9,981	9,981	10,570	10,570	10,692	10,692	10,792	10,792	10,792	10,792	11,359	11,359	11,253	11,253	10,164	10,164	10,114	10,164	11,375	11,375	11,326	11,326	10,056

**Due to limited communications, there are delays in regular shelter reporting. Updates will be provided as they become available.*

(ESF-6 Update, October 01, 2017, 4:00 a.m. EDT)

Power Outages
Total: 1,586,789



	PM 9/19/17	PM 9/20/17	PM 9/21/17	PM 9/22/17	PM 9/23/17	PM 9/24/17	PM 9/25/17	PM 9/26/17	PM 9/27/17	PM 9/28/17	PM 9/29/17	PM 9/30/17
St. Croix, USVI	6,905	25,274	25,274	25,274	25,274	25,274	25,274	25,274	25,274	25,274	25,274	25,274
St. John, USVI	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893
St. Thomas, USVI	19,574	19,574	19,574	19,574	19,574	19,574	19,574	19,574	19,574	19,574	19,574	19,574
USVI	29,372	47,741	47,741	47,741	47,741	47,741	47,741	47,741	47,741	47,741	47,741	47,741
Puerto Rico	61,308	1,570,000	1,569,796	1,569,796	1,569,796	1,569,796	1,569,796	1,569,796	1,569,796	1,569,796	1,507,004	1,491,307

(ESF 12 Update, October 01, 2017, 1:30 a.m. EDT)

Infrastructure Impacts						
Territory	Air	Ports	Roads	Fuel/Gas	Water	Communications
PR	11 of 12 (-1) airports open with restrictions; Mayaguez (MAZ) closed awaiting word from airport authority on re-open date San Juan Airport open for commercial flights	Four ports open: San Juan, Guayanilla, Salinas, Tallaboa Six ports open with restrictions: Arecibo, Fajardo, Vieques, Culebra, Guayama, Mayaguez, Ponce, Yabucoa 2 (-2) ports closed: Ponce, Yabucoa, Guanica, Roosevelt Roads	11 highways open; 11 other roads remain closed 3,209 (+1,284) public road incidents reported (landslides, waterway issues, blockages, bridges, etc.)	714 out of 1,100 retail gas stations operational	Boil Water Advisory for potable water issued island wide Of 52 waste water treatment plants, nine operational, 19 non-operational, 24 unknown 45% of Puerto Rico Aqueduct and Sewer Authority (PRASA) clients have access to drinking water; (PRASA serves 96% PR pop)	11.3% of island with cell service; service around SJU airport restored Public Safety Answer Points (PSAPs)/911 centers operational
USVI	St. Thomas open and receiving commercial aircraft; must contact tower five minutes out St. Croix open with restrictions	St. Thomas Open: Charlotte Amalie, East Gregerie Channel, West Gregerie Channel (Crown Bay) Open with restrictions: Red Hook Bay St. John Open with restrictions: Cruz Bay St. Croix Open: Krause Lagoon, Limetree Bay, Frederiksted Closed: Christiansted	Numerous routes partially closed on St. Thomas and St. John. St. Croix: Most highways are open with caution; All traffic signals on St Thomas and St Croix completely destroyed.	St. Croix and St. Thomas reports adequate fuel supply on island for power generation and response efforts, including gasoline, diesel, and propane	Boil Water Advisory for potable water territory-wide	30.2% cell phone coverage in USVI; PSAPs non-operational St. Thomas: 40% of 55 cell towers operational St. John: No cell towers operational St. Croix: 21.4% of 42 cell towers operational
As of:	*October 1 12:23 am. EDT*	*September 30 4:15 p.m. EDT*	*October 1 12:23 a.m. EDT*	*October 1 12:23 a.m. EDT*	*September 30 9:59 a.m. EDT*	*September 30 2:41 p.m. EDT*

(ESF-1, ESF-2, ESF-10, ESF-12, PRASA, USCG)

Declaration Activity:

Territory	Declaration	Declared Counties		
		Individual Assistance	Public Assistance	Cost Share
PR	9/28: *DR-4339*	54 municipalities	All	100% for debris removal and emergency protective measures for 180 days from declaration date
	9/10: *DR-4336*	12 municipalities	31 municipalities	75%
USVI	9/28: *DR-4335*	St. Thomas, St. John	All (Categories A-G)	100% for debris removal and emergency protective measures for 180 days from declaration date
	9/20: *DR-4340*	St. Croix, St. John, St. Thomas	All	75%

(FEMA Declarations Unit, September 30, 2017, 9:35 p.m. EDT)

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Force Laydown:

Department/Agency	Puerto Rico	U.S. Virgin Islands			Totals
		St. Croix	St. John	St. Thomas	
American Red Cross (ESF-6)	418	215	*	*	633
Army Corps of Engineers (ESF-3)	106	81	3	44	234
Civil Air Patrol (ESF-5)	63	*	*	*	63
Customs and Border Protection (ESFs 5, 9 and 13)	86	5	0	5	96
Department of Agriculture (ESF-11)	1	0	0	0	1
Department of Defense Title 10*	3,296	*	*	*	3,296
Department of Energy (ESF-12)	2	1	0	25	28
Department of the Interior	227	20	41	0	288
Department of Transportation (ESF-1)	3	2	0	26	31
DHS – NPPD	26	1	0	2	29
Environmental Protection Agency (ESF-10)*	23	25	0	0	48
Federal Law Enforcement (ESF-13)	335	5	0	0	340
FEMA Deployed	576	260	6	50	892
FEMA Urban Search & Rescue (ESF-9)	80	0	0	0	80
Forest Service (ESF-4)	216	20	0	27	263
General Services Administration (ESF-7)	18	0	0	0	18
Health and Human Services (ESF-8)	483	29	8	13	533
National Guard Bureau*	2,697	988	*	613	4,298
National Weather Service - NOAA	30	0	0	0	30
Small Business Administration (ESF-6)	11	2	0	2	15
Transportation Security Administration (ESF-1)	86	8	0	5	99
United States Coast Guard (ESFs 1, 5, 7, 9, 10, 13 and 15)*	1,402	*	*	*	1,402
TOTALS	10,185	1,662	58	812	12,717

** DOD personnel numbers include 2,359 personnel supporting from sea; DOD and NGB numbers not broken out by island*
**Civil Air Patrol flights support all USVI*
(Situational Awareness Info Analysis, September 30, 2017, 4:30 p.m. EDT)

FEMA Headquarters:

- National Response Coordination Center (NRCC) at Level I (Full Activation), 24/7 operations
- National Incident Management Assistance Team (IMAT) East-2 at San Juan Convention Center Initial Operating Facility (IOF)
- **Recovery**
  - Strategic Workforce Augmentation Team taking calls at three National Processing Service Centers, FEMA pop-up call centers, Headquarters, all FEMA Regions, and from home; 3,908 call center agents available to receive calls *(Recovery Contact Center Surge Staffing Timeline, September 30, 2017, 12:26 p.m. EDT)*
  - Total Individuals and Households Program Registrations for PR: 58,048 and USVI: 4,312 *(Open Disaster IA Summary, September 30, 2017, 7:07 p.m. EDT)*
- **Mutual Aid**

Region	Jurisdiction	# of Request(s)	# of States Supporting
II	PR	57 (0)	17 (0)
II	USVI	30 (0)	13 (0)

(EMAC Sit Rep #76, September 30, 2017, 8:00 p.m. EDT)

FEMA Region II:

- Region II RRCC not activated; some RRCC staff supporting NRCC operations
- FEMA Region II IMAT in St. Croix; Eight Region X IMAT members in St. Thomas, one in St. Croix; Region III IMAT departing for St. Croix October 1 *(FOD Update, September 30, 2017, 1:50 p.m. EDT)*
- **Puerto Rico:**
  - EOC at Full Activation with limited operations and on generator power
  - Federal Coordinating Officer (FCO) is Alejandro De La Campa *(RII DSAR, September 27, 2017, 3:00 p.m. EDT)*
- **U.S. Virgin Islands:**
  - EOCs on each island at Full Activation *(RII DSAR, September 27, 2017, 3:00 p.m. EDT)*
  - USVI IOF located at St. Thomas EOC
  - FCO is William Vogel *(RII DSAR, September 27, 2017, 3:00 p.m. EDT)*

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Interagency Coordination for Puerto Rico:

- ***ESF-1: Transportation***
  - 129 bridges throughout PR damaged; 46 (36%) of damaged bridges inspected by PR Department of Transportation, 15 of the 46 closed for safety reasons *(ESF-1 Email Update, October 1, 2017, 2:35 a.m. EDT)*
  - Airports:
    - Luis Muñoz Marín International Airport (SJU) in San Juan
      - Combined En-Route/Approach Radar and Picco De Este radar site both fully functional and providing increased capability for airport
      - 50% of terminal on electrical power; Transportation Security Administration screeners using electronic screening
      - Airport reports more capacity than demand, will encourage additional commercial flights
      - Six day supply of aviation jet fuel available; pipeline from port of San Juan to airport intact; able to provide fuel as needed *(ESF-1 Update, September 30, 2017, 5:11 p.m. EDT)*
    - Roosevelt Roads continues to expand air operations; airport generator power restored; airport ramp space rapidly filling as additional support units arrive
  - Ports:
    - Ports of Ponce and Yabucoa open with restrictions September 30 *(USCG Update, September 30, 2017, 4:25 p.m. EDT)*
    - National Oceanic and Atmospheric Administration (NOAA) vessel Thomas Jefferson completed survey of Roosevelt Roads September 30; status still undetermined due to significant pier damage and debris *(USCG Update, September 30, 2017, 5:03 p.m. EDT)*
- ***ESF-2: Communications***
  - Six commercial communications company personnel and six vehicles en route from Dobbins Air Force Base to support communications restoration; expected arrival in San Juan no later than October 4
  - Staging areas identified for commercial communication carriers
  - National Telecommunications and Information Administration spectrum manager will arrive in San Juan October 2 *(ESF-2 Update, October 1, 2017, 12:49 p.m. EDT)*
- ***ESF-3: Public Works and Engineering***
  - Temporary Power:
    - Completed 58 of 125 requested generator pre-installation inspections; ten installations completed to date and ten in progress at priority medical facilities and Roosevelt Roads Naval Base; 49 requested generators available on hand *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*
    - Priorities for temporary power restoration include PR Electric Authority Data Center, Centro Cardiovascular de PR y del Caribe, and Departamento Recreacion y Deporte *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*
    - Defense Logistics Agency received requirement to provide additional 304 generators to USVI and PR; sourcing through vendors, plan to begin shipping to Jacksonville for staging October 2 *(DLA Update, September 30, 2017, 4:47 p.m.)*
  - Dams:
    - Guajataca Dam spillway eroding; immediate risk reduction measures ongoing to stabilize dam spillway and clear outlet blockage
      - Nine hundred sandbags arrived September 30; will begin sandbag reinforcement of spillway channel October 1 or 2, pending debris removal
      - Sourcing pumps to expedite reservoir drawdown *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*
    - Eight of 17 priority dam inspections complete *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*
  - Debris: Routes 14 and 191 cleared; will complete clearing remainder of Route 605 by end of October 1 *(ESF-3 Update, September 30, 2017, 11:20 a.m. EDT)*
  - Temporary Roofing:
    - Current estimates: 60K roofs damaged; collected 656 Right of Entry Agreements *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*
    - Task order issued to roofing contractor; will begin roofing after October 5 upon arrival of 10,000 rolls of sheeting (25,000 requested); priority is critical public facilities *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*
    - Top residential priorities for temporary power restoration include Culebra Island and Vieques Island *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*

- 600K tarps on order; 124K will arrive by end of October on following delivery schedule:
  - October 6: 4K
  - October 20: 60K
  - October 27: 60K *(ESF-3 Update, September 30, 2017, 10:26 a.m. EDT)*

- ***ESF-4: Firefighting***
  - Twenty-six chainsaw teams (52 personnel) and one Type-2 Incident Management Team (IMT) (29 personnel) continue clearing roads to fire stations and other critical facilities; this includes three miles of road along PR-3 (PR-192 South to Humacao) and four miles of road along PR-140 (Jayuya to Utuado)
  - One Type-2 IMT (85 personnel) providing command, control, and coordination of resources, and conducting firefighting capability assessment in San Juan; completed assessment of one third of stations
  - One Type-1 IMT (49 personnel) working with FEMA to establish Incident Support Base (ISB) at Rafael Hernandez Airport in Aguadilla; final preparations complete for billeting and resource staging areas *(ESF-4 Update, September 30, 2017, 11:47 p.m. EDT)*
- ***ESF-5: Information and Planning***
  - Four Civil Air Patrol (CAP) aircraft staged in PR; three sorties flown September 30 to assess critical infrastructure in PR; nine sorties scheduled October 1 for PR and USVI *(CAP Update, September 30, 2017, 7:57 p.m. EDT)*
  - Responder Lodging Planning: Transitioning process to field for management on-site; will report available capacity to NRCC daily *(Responder Housing Planning Cell, September 30, 2017, 11:36 a.m. EDT)*
  - Power Restoration Crisis Action Planning Team:
    - Developing sustainment requirements for fuel in anticipation of a 2-3 month requirement
    - Analyzing fuel requirements for PR operations, including bulk capacity and resupply, distribution, and ordering, with emphasis on restarting and sustaining private sector fueling network *(Power/Fuel Civil Action September 30, 2017, 11:36 a.m. EDT)*
- ***ESF-6: Mass Care, Emergency Assistance, Housing, and Human Services***
  - 548 (+168) registrations on American Red Cross Safe and Well reunification website *(ESF-6 Update, October 1, 2017, 1:14 a.m. EDT)*
  - Feeding:
    - Coordinated first official multi-agency Feeding Sub-Task Force meeting with all local, state, non-governmental organizations
    - Salvation Army delivered 6,000 food boxes in seven locations and obtained 100,000 square foot building in Caguas to support feeding and distribution operations *(ESF-6 Update, October 1, 2017, 1:14 a.m. EDT)*
    - DLA providing 600K Meals Ready to Eat (MREs) per day for 20 days starting September 30; and 2.5M commercial meals per day for 30 days starting October 7 *(DLA Update, September 30, 2017, 1:47 p.m.)*
    - American Red Cross delivered 7,000 liters of water and 25,000 shelf-stable meals September 30
  - Shelters: PR Department of Education down to five-day water supply for shelters; ESF-6 working with ESF-7 to prioritize water delivery *(ESF-6 Update, September 30, 2017, 2:04 p.m. EDT)*
- ***ESF-7: Logistics Management and Resource Support***
  - Incident Support Bases (ISBs):
    - Roosevelt Roads Air/Sea Port and Rafael Hernandez Airport in Aguadilla open for air operations
    - Preparing to open Ponce Air/Sea Port, and Marine Corps support facility at Blount Island *(ESF-7 Update, October 1, 2017, 2:54 a.m. EDT)*
  - Commodities:
    - Received requirement to provide additional 304 generators to USVI/PR; DLA sourcing through vendors *(DLA Update, September 30, 2017, 1:47 p.m.)*
    - Defense Logistics Agency (DLA) shipping 218 generators; 160 will remain in PR, 58 will go to USVI
    - Contracting for 100 40-foot roller units to support hospitals and mortuaries
    - Coordinating with DLA to acquire 50 water trucks to support hospitals and shelters; preparing mission assignment for five September 30 *(ESF-7 Update, September 30, 2017, 2:03 p.m. EDT)*
    - DOD C-17 Expeditionary Sustainment Command and Canadian C-17 Sustainment Brigade arrived at Roosevelt Roads to enhance commodities distribution effort *(DOD Update, September 30, 2017, 12:35 p.m.)*
    - Flights into Puerto Rico September 30:
      - October 1: 11 flights transporting approximately 310,000 meals, 150,000 liters of water, generators, and tarps scheduled to arrive in San Juan *(ESF-7 Update, October 1, 2017, 2:54 a.m. EDT)*

- Ships into Puerto Rico:
  - El Rey transporting 756,000 liters of water, 694,000 meals, and four generators; expected to arrive October 1 *(ESF-7 Update, September 30, 2017, 3:58 a.m. EDT)*
  - Seven DOD vessels scheduled to arrive in PR by October 5 with 3.5 million liters of water, 5.5 million meals, four generators and 11,500 rolls of blue roof sheeting *(DOD Update, September 30, 2017, 12:35 p.m.)*
- GSA-leased Vehicles: 180 requested vehicles available for lease through an island vendor *(ESF-7 Update, October 1, 2017, 2:54 a.m. EDT)*
- Responder Lodging

Name/Vessel	Status	Destination/Port	Arrival Date	Beds Capacity	Beds Occupied	Beds Open
PR Convention Center	Operational	PR: San Juan	Arrived	900	916	-16
TS Kennedy	Operational	PR: San Juan	Arrived	600	600	0
TS Empire State	En route	PR	10/1	600		
La Suprema	En route	PR	10/5	2,200		
Adriana	En route	PR	10/6 - 10/9	302		
Rhapsody	En route	PR	10/10 - 10/12	2,044		
JMC 3330	Secured	PR	10/19	430		
			PR TOTAL:	**6,726**	**1,516**	**-16**

(Responder Lodging CAP Update, September 31, 2017, 12:00 a.m. EDT)

- USCG must inspect La Suprema and Rhapsody before they can accept responders for berthing; will perform inspections prior to ships' arrival in port *(USCG Update, September 29 2017, 1:32 p.m. EDT)*

- ***ESF-8: Public Health and Medical Services***
  - Hospitals:
    - Power restored to nine (13%) hospitals (back on electrical grid)
    - Veterans Hospital in San Juan has low water reserves, restricted non-emergency surgery and running low on antibiotics
    - DMAT station at Centro Medico de Puerto Rico has seen 248 total patients
    - Centro Medico Hospital Director forecasting the need to move pre-term labor patients to CONUS; numbers unknown at this time *(ESF-8 Update, October 1, 2017, 1:39 a.m. EDT)*
  - Dialysis Centers
    - 46 of 48 open, many operating at less than normal capacity
    - Frensenius Kidney Care requesting urgent assistance for water and diesel for the Naranjito clinic, serving 88 patients, that closed on September 27; able to account for patients in 22 of 27 clinics
      - FEMA secured a private contractor to provide fuel and water exclusively to the functional dialysis clinics *(ESF-8 Update, October 1, 2017, 1:39 a.m. EDT)*
  - DoD helicopters moved 3 HHS DMATs (125 personnel and 12,500 lbs of equipment) to Mayaguez, Arecibo, and Ponce from Roosevelt Roads
  - USNS COMFORT expected to arrive at Port of San Juan on October 3rd *(DoD Update, October 1, 2017, 2:06 a.m. EDT)*
- ***ESF-9: Search and Rescue***
  - Two FEMA Urban Search and Rescue (US&R) task forces (80 personnel) active in Puerto Rico
  - FEMA US&R teams visited all 78 PR municipalities, coordinating with IMAT and PREMA to monitor need for targeted searches
  - FEMA US&R responded to Utuodo after learning of landslide; accessed area September 30 and encountered 137 families; no fatalities or requirements for airlifts, DOD delivered food and water *(ESF-9 Update, September 30, 2017, 12:51 p.m. EDT)*
- ***ESF-10: Oil and Hazardous Material Response***
  - Port assessments identified more than 150 derelict vessels in Vieques and Culebra; pollution threats minimal
    - Continuing to identify and notify vessel owners to remove vessels; conducted overflight September 30 on larger sunken vessel off Vieques, report results October 1 *(USCG Update, October 1, 2017, 1:00 a.m. EDT)*
- ***ESF-11: Agriculture and Natural Resources***
  - One USDA pet veterinarian working at JFO, two additional veterinarians with Humane Society of the United States (HSUS) conducting assessments; HSUS deploying eight more veterinarians October 1 *(ESF-11, September 30, 10:18 a.m. EDT)*

- HSUS began animal evacuations from September 29
- 218th Medical Detachment Veterinary Service Support prepared to deploy in accordance with incident-level resource phasing plan *(DOD, October 1, 2017, 4:12 a.m. EDT)*
- Thirteen of 84 Food Safety Inspection Service regulated facilities open but not operational due to power outage and lack of potable water
- Diesel fuel needed for the tropical fruit repository in Mayaguez
- Eighty-eight pallets of hay and feed will ship October 1
- Two-thousand pounds of horse feed and 800lbs of dog and cat food airdropped to Vieques September 30
- EMAC team from NC will arrive October 1st to assess pet/animal facilities and veterinary infrastructure *(ESF-11 Update, September 30, 2017, 10:50 p.m. EDT)*

- ***ESF-12: Energy***
  - Power: Puerto Rico Electric Power Authority (PREPA) executed contract for additional crews, anticipate need for 250-300 linemen to restore transmission lines; United States Department of Energy coordinating with FEMA, PREPA, and industry to transport additional crews, equipment, and materials to PR to support damage assessments and restoration activities
  - Fuel:
    - Michigan-based oil company will send approximately 20 truck drivers and fuel (amount to be determined) to aid relief efforts *(DoE SitRep #68 Update, September 30, 2017, 12:30 p.m. EDT)*
    - DLA received requirements to replenish up to 500k gallons of fuel to support FEMA/DLA priorities and provide 14 additional fuel trucks through October 19 *(DLA Update, September 30, 2017, 1:47 p.m.)*
- ***ESF-13: Public Safety and Security***
  - Supporting ESF-8, ESF-9, Puerto Rico Police Department, and Federal security sites
  - Puerto Rico Hurricane Maria Response Law Enforcement Task Force will stand up at Sheraton Hotel San Juan, next to FEMA IOF, to process and prioritize law enforcement requests
  - Four additional quick response teams (QRTs) arriving October 3 *(ESF-13 Update, September 30, 2017, 12:23 p.m. EDT)*
- ***ESF-15: External Affairs***
  - Private Sector:
    - Facilitated access to the PR Convention Center for Eli Lilly and Direct Relief to support relief efforts
    - Notified private sector stakeholders donations are handled by the First Lady of Puerto Rico's office
    - Connected FEMA Logistics with Sears Holding Management Corporation for movement of POD materials
    - Coordinated with ESF-6 to set up Pier 8 as hurricane relief center for Old San Juan residents
  - Intergovernmental Affairs:
    - Coordinated with the White House to connect the Massachusetts Governor's Office with NVOAD for delivery of donations *(ESF-15 Update, September 30, 2017, 11:14 p.m. EDT)*
- ***U.S. Department of Defense (DOD)***
  - United States Marine Corps identified eight additional aircraft (six MV-22s and two KC-130s) that will deploy to support operations on Puerto Rico; expected to arrive next week *(DOD Update, September 30, 2017, 12:35 p.m.)*
  - USS WASP en route to Puerto Rico; expected to arrive October 3rd (three MH-60s, six MH-60s, and four CH-53s)
  - Defense Logistics Agency: Working with USACE on potential material and distribution requirements to support Puerto Rico electrical grid rebuild efforts
  - Strategic airlift support:
    - Seven C-17s arrived in PR with MREs and water, an Expeditionary Sustainment Command, a Sustainment Brigade Headquarters, a network communications enabler unit, and an air traffic control mobile tower
    - Four C-130s arrived carrying sandbags and passengers
    - One C-130 shuttle made three trips between PR and USVI; C-17 arrived with a Brigade Support Battalion Headquarters *(DoD Update, October 1, 2017, 2:06 a.m. EDT)*
- ***National Guard Bureau (NGB)***
  - Coordinating movement of approximately 1,700 personnel through October 3, with as many as 6,000 personnel postured to respond to PR requests, pending flight availability *(NGB Update, September 30, 2:20 p.m. EDT)*

- Conducted ground evacuations in Toa Baja, Isabela, Quebradillas, and San Sebastian
- Twelve NG armories to serve as Points of Distribution for food and water *(NGB Update, October 1, 2017, 2:19 p.m. EDT)*

- ***U.S. Coast Guard (USCG)***
  - Competed 91% of assessments of critical Aids to Navigation (ATON); buoy tender Cypress conducting additional ATON verification and correction in Guanica
  - USCG Cutter Venturous delivered food and hygiene supplies to Ponce
  - USCG Cutters Decisive and Forward and buoy tender Elm loading relief supplies to deliver to San Juan
  - USCG infrastructure assessment team deployed to Roosevelt Roads to assess existing infrastructure and determine if any significant structural safety concerns would impact DOD/FEMA operational plans *(USCG Update, September 30, 2017, 1:22 p.m. EDT)*
- ***U.S. Customs and Border Protection (CBP)***
  - CBP Air-Marines completed 104 flight missions total, delivering water, meals, and recovery supplies; providing search and rescue assistance for military vessels, and supporting evacuee transport and reconnaissance and rescue missions for severely impacted areas *(CBP Update, September 30, 2017, 12:33 p.m. EDT)*
- ***U.S. Department of the Interior (DOI)***
  - U.S. Fish and Wildlife Service (USFWS):
    - Amphibian Quest Kodiak N736 aircraft arrived September 29; working mission assignment with ESF-1 to support transportation infrastructure overflight October 1
    - Two fixed-wing aircraft arrived September 30; mission to provide infrastructure support for damaged facilities will start October 1; anticipate one rotary-wing aircraft will be available for deployment October 4 *(DOI Update, October 1, 2017, 1:30 a.m. EDT)*
    - National Wildlife Refuge supporting housing inventory, debris removal, and emergency assistance for communities in Cabo Rojo, Culebra, and Vieques
    - USFWS staff facilitating communication between Mayor of Vieques and Governor of PR on behalf of seven other Federal agencies on Vieques; coordinating with U.S. Postal Service on inspection of post office to resume service
  - United States Geological Survey (USGS):
    - Coordinating with USACE and National Weather Service to prioritize gage repairs, beginning with those near dams; 10 hydrologists continue to support Guajataca Lake inflow and outflow measurements
    - Examining satellite imagery to identify locations of roads, other infrastructure, and buildings impacted by landslides; descriptions and links to geospatial data will be provided on Landslide Hazards homepage *(DOI Update, September 30, 2017, 2:00 p.m. EDT)*

Interagency Coordination for U.S. Virgin Islands:

- ***ESF-1: Transportation***
  - All traffic signals on St. Thomas and St. Croix completely destroyed; new system will be necessary *(ESF-1 Update, September 30, 2017, 12:58 p.m. EDT)*
  - Airports:
    - Limited commercial air operations into St. Thomas; inter-island commercial flights scheduled to resume October 1
    - Henry E. Rohlsen Airport in St. Croix (STX) scheduled to resume commercial flights October 5 *(ESF-1 Update, September 30, 2017, 12:58 p.m. EDT)*
  - Ports: NOAA vessel Thomas Jefferson and USACE anticipate surveying Port of Christiansted October 1 *(USCG Update, September 30, 2017, 11:35 a.m. EDT)*
- ***ESF-2: Communications***
  - Developed prioritized listing telecom provider assets requiring fueling/maintenance support *(Communications SITREP #011, September 30, 2017, 5:00 p.m. EDT)*
- ***ESF-3: Public Works and Engineering***
  - Temporary Power:
    - Completed 121 of 153 requested pre-installation inspections; 18 generators installed to date and 11 more in progress; 35 generators available on hand, 108 en route, 248 on order *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*
    - Five large generators arrived in St. Croix September 30 for priority installations at Rohlsen Airport, Myra Keating Smith Health Center, and water/waste-water facilities; installation dates to be

determined; installations at Golden Grove Prison and Myrah Keating Smith Health Center in progress *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*

- Debris
  - St. Thomas: USACE estimates debris volume at 355,000 cubic yards; debris removal operations to begin October 1
  - St. Croix: 1,500 cubic yards estimated debris collected by Department of Public Works and sub-contractors to date *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*
  - St. John: USACE estimates debris volume at 33,000 cubic yards; debris removal operations to begin October 8 *(ESF-3 Update, September 30, 2017, 1:21 p.m. EDT)*
- Temporary Roofing
  - Current blue roof estimates: St. Croix: 5,000, St. Thomas: 7,000, and St. John: 1,000
  - As of September 30, installed 43 roofs, collected 1,198 Right of Entry Agreements (ROE), and assessed 64 homes *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*
  - USACE provided ROE-collection training to local Department of Public Works personnel and established five ROE collection sites *(ESF-3 Update, October 1, 2017, 1:24 a.m. EDT)*

- ***ESF-4: Firefighting***
  - Type-2 IMT Bird assigned to commodity distribution on St. Croix; supporting FEMA Logistics and inventorying supplies at St. Croix airport and National Guard Base while GSA locates warehouse to set up logistics staging area (LSA)
  - Type-2 IMT Parrish assigned to commodity distribution on St. Thomas; will manage LSA at Haven-site dock; GSA contract for LSA warehouse not yet finalized; estimate will be complete October 3 *(ESF-4 Update, September 30, 2017, 2:23 p.m. EDT)*
- ***ESF-5: Information and Planning***
  - CAP flew one sortie over St. Croix September 30; nine sorties scheduled October 1 for PR and USVI *(CAP Update, September 30, 2017, 7:57 p.m. EDT)*
- ***ESF-6: Mass Care, Emergency Assistance, Housing, and Human Services***
  - Nine housing inspectors expected to arrive on St. Thomas by October 2; 47 additional inspectors expected no later than October 11 *(ESF-6 Update, October 1, 2017, 1:14 a.m. EDT)*
  - Voluntary Agency Liaisons:
    - Monitoring the status of resource requests related to donations warehouses on USVI including box trucks, mobile office space, and temporary shelter for storing goods
    - Expedited the approval process to assist with the coordination of billeting for VOAD partners *(ESF-6 Update, October 1, 2017, 1:14 a.m. EDT)*
  - Southern Baptist Disaster Relief expecting arrival of Alabama Feeding Unit on St. Thomas October 1
  - American Red Cross has served 32,844 meals and 7,977 snacks to date
  - Salvation Army continuing to provide 2,000 meals per day on St. Johns, 1,000 meals per day on St. Croix, and 5,500 meals on St. Thomas *(ESF-6 Update, September 30, 2017, 2:04 p.m. EDT)*
- ***ESF-7: Logistics Management and Resource Support***
  - Incident Support Bases (ISBs): Preparing to open ISBs in St. Thomas (Cyril E. King Airport) and St. Croix (Limetree Bay Terminal); staging materials for lots *(ESF-7 Update, September 29, 2017, 2:46 p.m. EDT)*
  - Commodities:
    - Ordered 29 generators for St. Thomas and 29 more for St. Croix from DLA; required delivery date October 2 *(ESF-7 Update, October 1, 2017, 2:54 a.m. EDT)*
    - Flights into USVI:
      - St. Thomas: One flight transporting 40,000 meals arrived September 30
      - St. Croix: Three flights transporting 23,000 liters of water, 25,000 meals, 48 cartons of infant/toddler kits, and 122 passengers arrived September 30 *(ESF-7 Update, October 1, 2017, 2:54 a.m. EDT)*
  - St. Croix: Six Points of Distribution open September 30 *(RII Daily Fact Sheet, September 30, 2017, 10:00 a.m. EDT)*
  - Responder Lodging

Name/Vessel	Status	Destination/Port	Arrival Date	Beds Capacity	Beds Occupied	Beds Open
Grand Celebration	Operational	USVI: St. Croix	Arrived	1,700	910 (+769)	790
SS Wright	Operational	USVI: St. Thomas	Arrived	315	157	158
Ocean Constructor	Operational	USVI: St. Thomas	Arrived	196	49	147

Ocean Carrier	En route	USVI: St. Thomas	10/8	123		
Azzure	En route	USVI: St. Thomas	10/10 – 10/12	1,808		
			TOTAL:	**4,142**	**1,116**	**1,095**

(Responder Lodging CAP Update, September 31, 2017, 12:00 a.m. EDT)

- USCG must inspect Azzure before it can accept responders for berthing; will perform inspection prior to ship's arrival in port *(USCG Update, September 29 2017, 1:32 p.m. EDT)*

- ***ESF-8: Public Health and Medical Services***
  - Evacuations for dialysis patients continue to be coordinated with the USVI Department of Health
  - Twenty-two person mental health team arrived September 30 and will be employed throughout the Territory *(St. Croix SITREP #15/#08, September 30, 2017, 9:47 p.m. EDT)*
  - Schneider Regional Hospital in St. Thomas and Governor Juan Luis Hospital in St. Croix condemned; will need to be torn down and replaced; HHS working to plan long-term solutions to provide care while new facilities under construction *(ESF-8 Update, September 30, 2017, 1:48 p.m. EDT)*
  - Royal Caribbean ship departed September 29 for Ft. Lauderdale, transporting 750 passengers from St. Croix, 200 from St. John, and 50 from St. Thomas; will arrive October 2 *(ESF-8 Update, September 30, 2017, 1:48 p.m. EDT)*
- ***ESF-10: Oil and Hazardous Material Response***
  - Sampled and tested 60 public water systems; 12 tested positive for E. Coli *(PR SitRep September 30, 9:30 p.m. EDT)*
  - Oil spill remains at Krum Bay in St. Thomas; protected desalinization plant located in bay from water intake, remains operational *(ESF-10 Update, September 30, 2:17 p.m. EDT)*
- ***ESF-11: Agriculture and Natural Resources***
  - Humane Society of United States will begin animal evacuations October 3
  - Animal assessment teams on St. Croix, St. Thomas, and St. John identifying facilities for assessment
  - Only Food Safety Inspection Service facility closed due to lack of power and potable water *(ESF-11 Update, October 1, 2017, 5:30 a.m. EDT)*
- ***ESF-12: Energy***
  - Puma Energy vessel Sichem Paris offloading fuel (gasoline and diesel) for use by St. Thomas and St. John; supply expected to meet needs of island for several weeks *(ESF-12 Update, September 30, 2017, 12:44 p.m. EDT)*
  - Power restored to 15% of customers on St. Thomas and 10% on St. Croix, including airports and hospitals
  - Virgin Islands Water and Power Authority (VIWAPA) expects to re-energize portions of Cruz Bay between October 9 and 14
  - Deploying conveys to transport and position 650 utility poles; effort will continue through October 1 *(DoE SitRep #68 Update, September 30, 2017, 12:30 p.m. EDT)*
- ***ESF-13: Public Safety and Security***
  - Federal Law Enforcement Officers providing security for billeting vessels located in St. Croix *(ESF-13 Update, September 30, 2017, 12:23 p.m. EDT)*
  - Federal Protective Service (FPS):
    - Severe damage to Hato Rey Federal Complex security perimeter; FPS providing 24/7 security coverage until vulnerabilities mitigated; securing a fuel tanker at Complex that serves as fuel distribution point for Federal law enforcement agencies
    - Thirty-eight additional FPS personnel expected to arrive in PR October 2 to support security at Disaster Recovery Centers *(FPS Update, September 30, 2017, 2:07 p.m. EDT)*
- ***U.S. Department of Defense (DOD)***
  - Two C-17s arrived with High Mobility Multi-Wheeled Vehicles, generators, and a Military Police unit and associated vehicles
  - Three C-130s arrived with a network communications enabler unit and military rations *(DoD Update, October 1, 2017, 2:06 a.m. EDT)*
- ***National Guard Bureau (NGB)***
  - Supporting ESFs 3, 6, and 13, and supporting 18 Points of Distribution throughout USVI *(NGB Update, October 1, 2017, 2:19 p.m. EDT)*
- ***U.S. Coast Guard (USCG)***
  - USCG communications towers in St Croix remain inoperable
  - NOAA vessel Thomas Jefferson will survey Port of Christiansted October 1 *(USCG Update, September 30, 2017, 2:22 p.m. EDT)*
- ***U.S. Department of the Interior (DOI)***

- Virgin Islands National Park remains closed; debris removal and communications restoration ongoing; DOI building continues to operate on generator power
- Christiansted National Historic Site park closed as cleanup continues *(DOI Update, September 29, 2017, 10:45 p.m. EDT)*

Commodities Tables

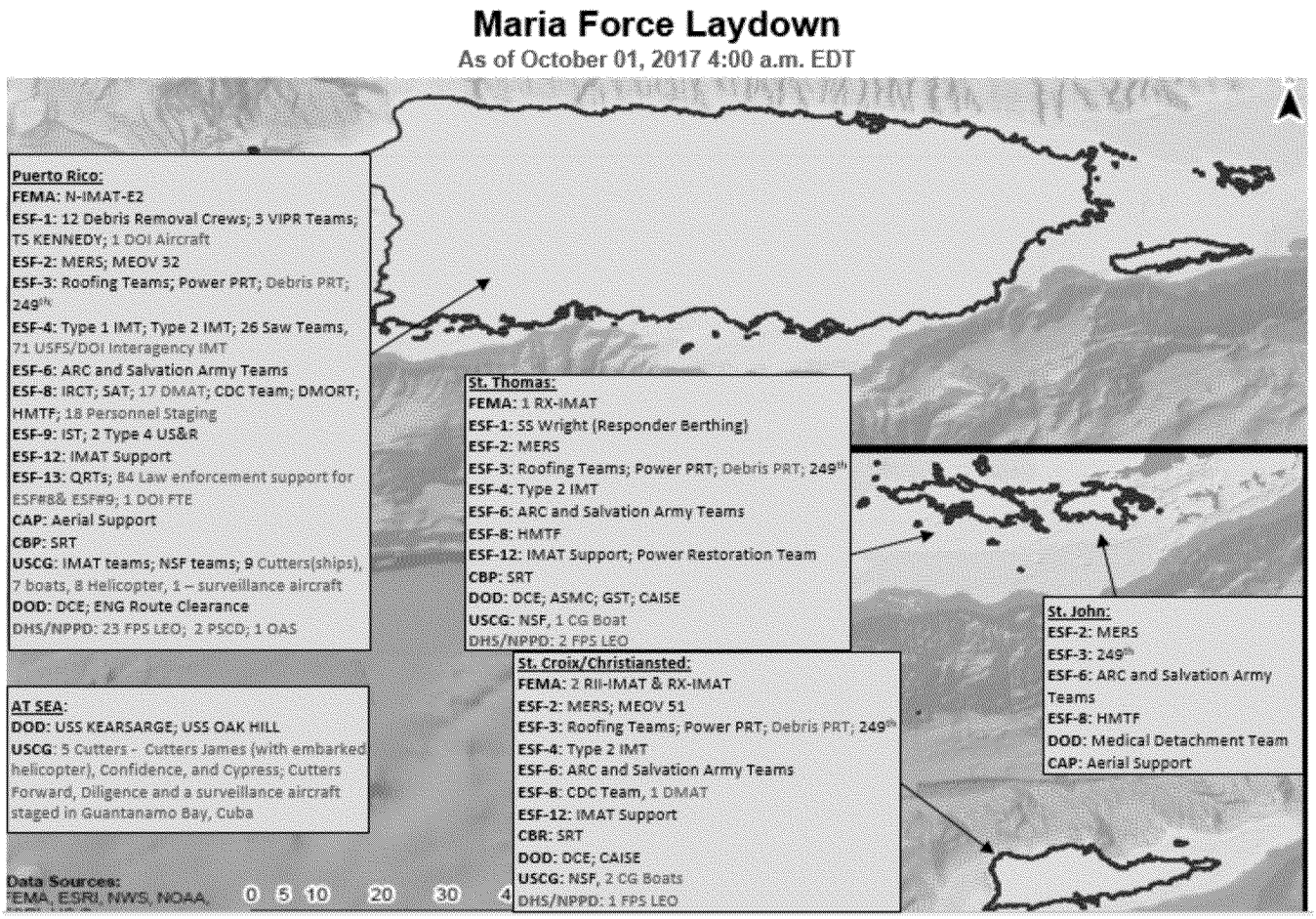
- The following commodities have arrived in USVI and PR:

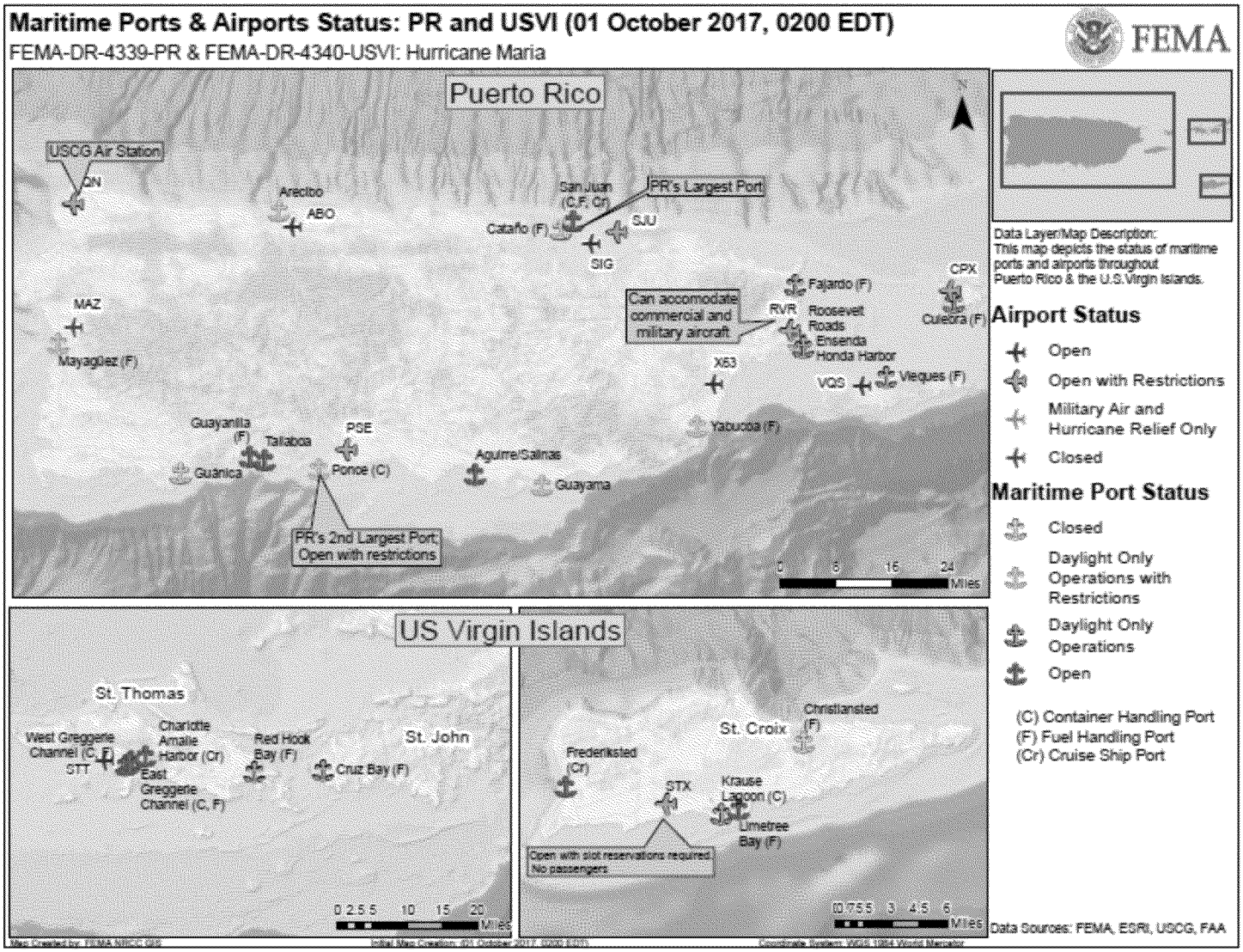
	Total Arrived Qty		
	Meals	Tarps	Water
St. Thomas	3,386,413	15,485	1,840,213
St. Croix	708,960	10,000	398,000
USVI Total	**4,121,373**	**25,485**	**2,238,213**

(ESF-7 Update, September 30, 2017 5:00 p.m. EDT)

	Total Arrived Qty				
	Meals	Tarps	Water	Generator	Cots
PR	4,300,230	5,000	4,585,714	53	22,202

(ESF-7 Update, September 30, 2017 5:00 p.m. EDT)




Maritime Ports & Airports Status: PR and USVI (01 October 2017, 0200 EDT)
FEMA-DR-4339-PR & FEMA-DR-4340-USVI: Hurricane Maria
FEMA
Puerto Rico
USCG Air Station
ON
Arecibo
ABO
San Juan (C,F, Cr)
PR's Largest Port
Catafio (F)
SJU
SIG
Fajardo (F)
CPX
Can accomodate commercial and military aircraft
RVR
Roosevelt Roads
Ensenada Honda Harbor
Culebra (F)
MAZ
Mayagüez (F)
X53
VQS
Vieques (F)
Yabucoa (F)
Guayanilla (F)
Tallaboa
PSE
Guánica
Ponce (C)
Aguirre/Salinas
Guayama
PR's 2nd Largest Port; Open with restrictions
0 8 16 24 Miles
US Virgin Islands
St. Thomas
West Greggerie Channel (C, F)
STT
Charlotte Amalie Harbor (Cr)
East Greggerie Channel (C, F)
Red Hook Bay (F)
St. John
Cruz Bay (F)
0 2.5 5 10 15 20 Miles
St. Croix
Christiansted (F)
Frederiksted (Cr)
STX
Krause Lagoon (C)
Limetree Bay (F)
Open with slot reservations required No passengers
0 0.75 1.5 3 4.5 6 Miles
Data Layer/Map Description:
This map depicts the status of maritime ports and airports throughout Puerto Rico & the U.S.Virgin Islands.
Airport Status
Open
Open with Restrictions
Military Air and Hurricane Relief Only
Closed
Maritime Port Status
Closed
Daylight Only Operations with Restrictions
Daylight Only Operations
Open
(C) Container Handling Port
(F) Fuel Handling Port
(Cr) Cruise Ship Port
Data Sources: FEMA, ESRI, USCG, FAA

Recovery Snapshot
Post-Tropical Cyclone Irma
Sunday, October 1, 2017 (5:00 a.m. EDT)
Updates in Blue

Declarations:

State/Region	Declaration	Declared Counties		
		Individual Assistance	Public Assistance	Cost Share
Region IV				
Georgia	9/28: *DR-4338*	7 counties	All (159 counties Cat A and B)	75%
Seminole Tribe of Florida	9/27: *DR-4341*	Seminole Tribe of Florida and associated lands	All 67 counties and Poarch Band of Creek Indians	100% (Cat B) for 30 days
Alabama	9/11: *EM-3389*		All (67 counties Cat A and B)	75%
Florida	9/10: *DR-4337*	48 counties	Seminole Tribe of Florida and associated lands	75% 100% (Cat B) for 30 days
South Carolina	9/7: *EM-3386*	-	All (46 counties and Catawba Indian Nation Cat B)	75%

Recovery Priorities, Issues, and Challenges:

State	Recovery Priorities	Issues/Challenges
Georgia	1. Deliver Individual Assistance 2. Open Disaster Assistance Centers 3. Conduct IA & PA preliminary damage assessments 4. Public Information	Not yet reported
Florida	1. Complete Public Assistance (PA) Preliminary Damage Assessments (PDAs) by 09/29/2017. 2. Housing in Lee, Hendry, and Collier Counties 3. Local Hire Program 4. Availability of hotels enrolled in TSA 5. HUD damage assessments 6. Temporary housing 7. Transitional Sheltering Assistance (TSA) 8. Flagler County requesting assistance in expediting processing of Category A and B and making funds available immediately. 9. Request for Direct Housing - DHAT will deploy to the counties to conduct assessments. 10. HUD has granted a 90-day moratorium on foreclosures and forbearance on foreclosures of Federal Housing Administration (FHA)-insured home mortgages. 11. Continuing to coordinate with State on STEP. 12. Ten travel trailers were delivered to pads in Kings Kamp, Key Largo, FL. 13. USACE feasibility inspectors are continuing their review of commercial park pads. 14. Flagler County has requested priority assignment from the state for fixed site registration at Flagler Beach and Hammock Communities. 15. Advanced Planning coordinated with GIS to create an interactive housing map and data sharing between stakeholders. 16. American Red Cross has provided 27,294 cumulative clean-up kits, 8,919 comfort kits and 527,003 bulk items through 09/27/17. 17. The Salvation Army has provided 89 cleanup kits, 3,596 hygiene kits, and 29,801 assorted bulk items through 09/27/17. 18. EA IGA responded to inquiries from state legislator and local officials, primary focus of inquiries were related to debris removal, contractor procurement, constituent registration concerns and an inspector verification. 19. The 30 day waiver for electrical work for damaged homes is set	• Staffing and collateral material for Individual Assistance and Disaster Survivor Assistance missions • Need more IA Caseworkers for applicants, some IA caseworkers do not have NEMIS/NACS rights • Pace of Individual Assistance payments • Sufficient debris removal resources • Survivors continue to request temporary housing as shelters are closing • Debris removal • Some schools in the Keys will not open until October 2nd • Capacity at the 1-800 FEMA number • Need more language interpreters, Spanish and Creole (Haitian) • Flagler County is very low on funding due to Hurricane Matthew and initial Irma response efforts, they have no reserve funds to draw upon. • Frustrations with long wait times and dropped calls when calling the 1-800 FEMA number • Branch 4 -Survivors and County EM's are concerned about the lack of information on Housing Strategies for survivors. • Hernando County mosquito traps are catching 26,000 mosquitos overnight where the normal trap rate would be 500. • Survivors are leaving without assistance prior to registering at the DRC due to extreme temperatures and extended wait times. • Concerns over potential arrival of approximately 3,200 evacuees via cruise

	to expire Oct 13. Clay County is concerned that homeowners may not understand why the electricity will be turned off if the home repairs are not up to code. Messaging may be needed. 20. Developing Innovative Housing Solutions presentation for mission support, planning to Integrating FIU Extreme Events Institute 21. The Economic Housing RSF Team identified several areas of major concern and will begin analysis immediately	ship from Puerto Rico, St. Croix and St. Thomas. Evacuees are scheduled to dock on 3 Oct. in Port Everglades. Need more information from JFO on the coordination for these incoming survivors. • DSA concerns over inability to check survivor cases on NEMIS and to record encounters in collectors.

Damage Assessments:

State	Preliminary Damage Assessments (PDAs), including Categories C-G	
Georgia	• Destroyed: 46 structures • Major Damage: 171 structures • Minor Damage: 111 structures • Affected Habitable: 127 structures	PA PDAs: Total $29.6 M • Category A: $14.4M • Category B: $5.5M • Category C: $4.6M • Category D: $0.1M • Category E: $1.6M • Category F: $1.9M • Category G: $1.4M
Florida	In process	

Interagency Coordination/Recovery:

- ***Recovery Support Function (RSF): Housing Recovery***

Individual Assistance *(as of 09/30/2017, 7:52 p.m. EDT)*				
State	**Total Registrations**	**Total Individuals and Households Program Approved**	**Housing Assistance Approved**	**Other Needs Assistance Approved**
Georgia	26,743	$ 7,926,656	$ 5,254,805	$ 2,671,850
Florida	2,031,999	$ 682,380,029	$ 446,192,585	$ 236,187,444
Puerto Rico	3,943	$ 296,059	$ 141,653	$ 154,406
Seminole Tribe of Florida	20,078	Not yet reported	Not yet reported	Not yet reported
U.S. Virgin Islands	7,370	$4,592	$4,592	$0

Housing Inspections *(as of 09/30/2017, 7:52 p.m. EDT)*				
State	**Inspectors with Work**	**Inspections Issued**	**Inspections Complete**	**% Complete**
Georgia	19	4,318	1,460	33.8%
Florida	1,252	523,278	106,011	20.5%
Puerto Rico	25	1,279	500	39.0%
U.S. Virgin Islands	Not yet reported	5,569	4	0.07%

(Irma) National Flood Insurance Program Claims Estimate *(as of 09/29/2017, 1:34 p.m. EDT)*		
State	**Claims Submitted**	**Advanced Payments to Insured Survivors**
Florida	Over 22,000	Over $28,000,000
Georgia	Over 1,800	Over $2,000,000
South Carolina	Over 2,000	Over $1,100,000
U.S Virgin Islands	45	Not yet reported
Puerto Rico	4	Not yet reported
Alabama	1	Not yet reported

- Temporary Housing: FEMA approved extension period of Transitional Sheltering Assistance (TSA) Program for DR-4337-FLfrom October 8, 2017 through November 4, 2017 *(Memorandum signed by Alex Amparo, Assistant Administrator of The Recovery Directorate)*

Transitional Sheltering Assistance *(as of 09/30/2017, 11:54 p.m. EDT)*		
State	**Households Checked In to Hotel**	**Eligible**
Florida	8,653	690,081

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- Small Business Administration (SBA) Home Loans

SBA Home Loans *(as of 09/30/2017, 8:12 a.m. EDT)*					
Hurricane	**Applications Received**	**% Processed**	**Applications Approved**	**Loan $ Approved**	**Average Loan Amount**
Irma	21,447	54%	174	$7,820,300	$44,944

- US Department of Housing and Urban Development (HUD) *(no change from 9/20/2017)*

Hurricane Irma - Florida	Number of Properties in Impacted Area	Displaced (# of Beds for Healthcare - Hospital)	Displaced (# of Household for Public & Indian Housing - Multifamily Housing)	Returned or Permanently Housed (# of Households/Beds)
Multifamily Housing	0	0	0	0
Public and Indian Housing	0	0	0	0
Healthcare and Hospitals	104	804	0	100
Total	**104**	**804**	**0**	**100**

Hurricane Irma - Georgia	Number of Properties in Impacted Area	Displaced (# of Beds for Healthcare - Hospital)	Displaced (# of Household for Public & Indian Housing - Multifamily Housing)	Returned or Permanently Housed (# of Households/Beds)
Multifamily Housing	0	0	0	0
Public and Indian Housing	0	0	0	0
Healthcare and Hospitals	3	50	0	0
Total	**3**	**50**	**0**	**0**

Hurricane Irma – South Carolina	Number of Properties in Impacted Area	Displaced (# of Beds for Healthcare - Hospital)	Displaced (# of Household for Public & Indian Housing - Multifamily Housing)	Returned or Permanently Housed (# of Households/Beds)
Multifamily Housing	0	0	0	0
Public and Indian Housing	0	0	0	0
Healthcare and Hospitals	5	88	0	0
Total	**5**	**88**	**0**	**0**

- ***RSF: Economic Recovery***
  - SBA Business Loans

SBA Business Loans *(as of 09/30/2017, 8:12 a.m. EDT)*					
Hurricane	**Applications Received**	**% Processed**	**Applications Approved**	**Loan $ Approved**	**Average Loan Amount**
Irma	1,165	35%	8	$515,400	$64,425

  - USDA Risk Management Agency

State Specific Crop Insurance Information for Hurricane Irma as of 9/4/2017			
	Florida	**Georgia**	**Puerto Rico***
Liabilities	$2.3 billion	$818.6 million	$2.3 million
Largest Crop Liability (amount)	Orange Trees ($1.1 billion)	Cotton ($581.2 million)	Coffee ($932,742)

**PR crop liability was $53,445,686 for 2016 Reinsurance Year. As of June 9, 2017 only $2.3 million of liability was reported and available through the RMA Summary of Business.*

  - USDA Farm Service Agency

Total Combined $ Amount Loss for Crops/livestock by State	
Sept 18-Sept 22: Florida	n/a
Sept 10-Sept 12: Georgia	$338,272,398
Sept 18-Sept 22: Louisiana	$41,000,000

Total Combined $ Loss for Crops/Livestock by Hurricane *(as of 09/24/2017, 11:02 a.m. EDT)*	
Total Irma Hurricane Total	$338,272,398

Recovery Snapshot
Post-Tropical Cyclone Harvey
Sunday, October 1, 2017 (5:00 a.m. EDT)
Updates in Blue

Declarations:

State/Region	Declaration	Declared Counties		
		Individual Assistance	Public Assistance	Cost Share
Region VI				
Texas	8/25: *DR-4332*	39 counties	46 counties	90% (Cat A); 100% (Cat B) for 30 days, 90% thereafter

Recovery Priorities, Issues, and Challenges:

State	Recovery Priorities	Issues/Challenges
Texas	1. Sheltering and temporary housing 2. Debris Removal 3. Collect and disseminate accurate incident information to improve decision-making 4. Accurately track incident costs associated with assigned resources for cost recovery *(TDEM Sit Rep, September 29, 2017, 8:00 a.m. EDT)*	Not yet reported

Damage Assessments:

State	Preliminary Damage Assessments (PDAs), including Categories C-G	
	IA PDA	PA PDA
Texas	Not yet reported	21 counties requested, 20 counties complete, 1 county ongoing

Interagency Coordination/Recovery:

- ***RSF: Housing Recovery***

Individual Assistance *(as of 09/30/2017, 7:52 p.m. EDT)*				
State	Total Registrations	Total Individuals and Households Program Approved	Housing Assistance Approved	Other Needs Assistance Approved
Texas	840,980	$822,063,130	$605,243,195	$216,819,935

Housing Inspections *(as of 09/30/2017, 7:52 p.m. EDT)*				
State	Inspectors with Work	Inspections Issued	Inspections Complete	% Complete
Texas	2,684	511,103	294,112	57.5%

(Harvey) National Flood Insurance Program Claims Estimate *(as of 09/292017, 1:34 p.m. EDT)*		
State	Claims Submitted	Advanced Payments to Insured Survivors
Texas	Over 88,000	Over $1 billion
Louisiana	Over 480	Over $2 billion

Closure Rates:
- Over 4% of claims have been closed in Texas with over $42,000,000 paid in closed claims.
- Over 11% of claims have been closed in Louisiana with over $1,200,000 paid in closed claims.

- Temporary Housing

Transitional Sheltering Assistance *(as of 09/30/2017, 11:54 p.m. EDT)*		
State	Households Checked In to Hotel	Eligible
Texas	21,908	340,932

- Small Business Administration (SBA) Home Loans

SBA Home Loans *(as of 09/30/2017, 8:12 a.m. EDT)*					
State	Applications Received	% Processed	Applications Approved	Loan $ Approved	Average Loan Amount
Texas	51,770	64%	7,204	$605,400,000	$84,044

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- U.S. Department of Housing and Urban Development (HUD) *(as of 09/23/2017, 7:35 p.m. EDT)*

Hurricane Harvey - Texas	Number of Properties in Impacted Area	Displaced (# of Beds for Healthcare - Hospital)	Displaced (# of Household for Public & Indian Housing - Multifamily Housing)	Returned or Permanently Housed (# of Households/Beds)
Multifamily Housing	454	0	3,063	844
Public and Indian Housing	42	0	358	0
Healthcare and Hospitals	40	997	0	676
Total	**536**	**997**	**3,421**	**1,520**

- ***RSF: Economic Recovery***
  - SBA Business Loans

SBA Business Loans *(as of 09/30/2017, 8:12 a.m. EDT)*					
State	**Applications Received**	**% Processed**	**Applications Approved**	**Loan $ Approved**	**Average Loan Amount**
Texas	3,416	70%	583	$55,379,300	$94,990

  - U.S. Department of Agriculture (USDA) Risk Management Agency

State Specific Crop Insurance Information for Hurricane Harvey *(as of 9/23/2017)*		
	Texas*	**Louisiana ****
Liabilities	$792.4 million	$133.5 million
Largest crop liability (total)	Cotton ($352.3 million)	Rice ($104.1 million)
Policies received ++	>34,000	>2,900
Units Covered (acres) ++	4.9 million	>504,000

** Crops removed from calculation are AF/PRF, Cabbage, Oats, Onions, Potatoes and Wheat*
*** Parishes included are Acadia, Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis, Vermillion and Vernon*
++ Information collected from RMA's Summary of Business Reports http://www.rma.usda.gov/data/sob.html

  - USDA Farm Service Agency

Total Combined $ Amount Loss for Crops/livestock by State	
Sept 18-Sept 22: Texas	$72,961,810

  - USDA Disaster Supplemental Nutrition Assistance Program (D-SNAP)

New Apps Taken	New Approved			Households Denied	Supplements Approved			Total New + Ongoing Benefits
	Households	Persons	Total Benefits		Households	Persons	Total Benefits	
159,339	124,991	361,328	$118,701,657	7,733	10	34	2,873	$118,704,530

(Recovery Update, September 28, 2017, 11:02 a.m. EDT)

  - Natural Resources Conservation Service

	EWPP Sponsor requests	EQIP Applications	CTA/Employees Providing Assistance
Texas*	5 new, 6-7 previous projects that may need assistance	57	97
Louisiana**	0	0	25

**57 EQUIP application for FY17 received to date for TX special sign-ups*
***Little impacts, not anticipating EQIP applications for hurricane response but announced availability of EQIP*

ESF Coordinator:

Department of Defense/U.S. Army Corps of Engineers

Primary Agencies:

Department of Defense/U.S. Army Corps of Engineers
Department of Homeland Security/Federal Emergency Management Agency

Support Agencies:

Department of Agriculture
Department of Commerce
Department of Defense
Department of Energy
Department of Health and Human Services
Department of Homeland Security
Department of the Interior
Department of Labor
Department of State
Department of Transportation
Department of Veterans Affairs
Environmental Protection Agency
General Services Administration
Nuclear Regulatory Commission
Tennessee Valley Authority
American Red Cross
Corporation for National and Community Service

INTRODUCTION

Purpose

Emergency Support Function (ESF) #3 – Public Works and Engineering assists the Department of Homeland Security (DHS) by coordinating and organizing the capabilities and resources of the Federal Government to facilitate the delivery of services, technical assistance, engineering expertise, construction management, and other support to prepare for, respond to, and/or recover from a disaster or an incident requiring a coordinated Federal response.

Scope

ESF #3 is structured to provide public works and engineering-related support for the changing requirements of domestic incident management to include preparedness, response, and recovery actions. Activities within the scope of this function include conducting preincident and postincident assessments of public works and infrastructure; executing emergency contract support for life-saving and life-sustaining services; providing technical assistance to include engineering expertise, construction management, and contracting and real estate services; providing emergency repair of damaged public infrastructure and critical facilities; and implementing and managing the DHS/Federal Emergency Management Agency (FEMA) Public Assistance Program and other recovery programs.

Policies

State, Tribal, and Local

- State, tribal, and local governments are responsible for their own public works and infrastructures and have the primary responsibility for mitigation, preparedness, response, and recovery.
- State, tribal, and local governments are fully and consistently integrated into ESF #3 activities.

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- When activated to respond to an incident, the primary agencies for ESF #3 develop work priorities in cooperation with State, tribal, and/or local governments and in coordination with the Federal Coordinating Officer and/or the Federal Resource Coordinator.

- Local authorities are responsible for obtaining required waivers and clearances related to ESF #3 support.

- State, tribal, and local mutual aid and assistance networks facilitate the sharing of resources to support response and recovery.

Private Sector

- The private sector owns or operates a large proportion of the Nation's infrastructure and is a partner and/or lead for the rapid restoration of infrastructure-related services. Through ongoing planning and coordination, the private sector provides critical details for incident action planning and decisionmaking processes during an incident. Also, private-sector mutual aid and assistance networks facilitate the sharing of resources to support response and recovery.

- The Critical Infrastructure and Key Resources (CIKR) Support Annex provides details regarding the processes that help to ensure coordination and integration of private sector CIKR-related activities among a wide array of public and private incident managers.

Federal Government

- ESF #3 provides Federal public works and engineering support when there is a need for additional resources or capabilities to support and sustain the response and initial recovery. During large-scale events, all levels of government and the private sector will take proactive actions to respond, anticipating resources that may be required. Resources and capabilities can also be provided when other departments or agencies within the Federal Government require assistance.

- ESF #3 facilitates and coordinates support from Federal departments and agencies providing public works and infrastructure support assistance.

- Federal agencies are responsible for complying with appropriate environmental and historic preservation statutes.

CONCEPT OF OPERATIONS

General

- The Department of Defense (DOD)/U.S. Army Corps of Engineers (USACE) is the primary agency for providing ESF #3 technical assistance, engineering, and construction management resources and support during response activities.

- DHS/FEMA is the primary agency for providing ESF #3 recovery resources and support, to include assistance under the DHS/FEMA Stafford Act Public Assistance Program. The Public Assistance Program provides supplemental Federal disaster grant assistance for debris removal and disposal; emergency protective measures; and the repair, replacement, or restoration of disaster-damaged public facilities and the facilities of certain qualified private nonprofit organizations.

- Close coordination is maintained with Federal, State, tribal, and local officials to determine potential needs for support and to track the status of response and recovery activities.

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- Priorities are determined jointly among State, tribal, and/or local officials. Federal ESF #3 support is integrated into the overall Federal, State, tribal, local, nongovernmental organization (NGO), and private-sector efforts.

- Support agency representatives collocate with ESF #3 field personnel to coordinate support as necessary.

ORGANIZATION

Headquarters ESF #3 Support

- **Domestic Readiness Group (DRG):** For all phases of incident management, ESF #3 can provide on-call subject-matter experts to support DRG activities.

- **National Operations Center (NOC):** ESF #3 identifies on-call representatives that can deploy to any of the NOC elements, if required.

- **National Response Coordination Center (NRCC):** When activated by DHS/FEMA, ESF #3 representatives deploy to the NRCC. Following a Presidential emergency or major disaster declaration, DHS/FEMA Headquarters may also deploy Public Assistance staff to initiate activities to support recovery operations.

- **USACE Operations Center (UOC):** The UOC coordinates the activation and deployment of national DOD/USACE teams and resources.

Regional-Level ESF #3 Support

- **Regional Interagency Steering Committee (RISC):** ESF #3 participates in RISC preparedness and coordination activities.

- **Regional Response Coordination Center (RRCC):** When activated by DHS/FEMA, ESF #3 representatives deploy to the RRCC. The ESF #3 Team Leader at the RRCC coordinates assignments, actions, and other support until the Joint Field Office (JFO) is established. When activated, DHS/FEMA Public Assistance personnel deploy to initiate regional support.

Field-Level ESF #3 Support

- **JFO:** When activated by DHS/FEMA, ESF #3 personnel deploy to the JFO. ESF #3 is responsible for preparing statements of work, providing estimates of cost and completion dates for mission assignments, tracking mission execution, determining resource requirements, setting priorities, disseminating information, and providing public information and external communications support. When activated, DHS/FEMA Public Assistance personnel deploy to initiate State- or tribal-level support (in coordination with ESF #15 – External Affairs).

- **Unified Coordination Group:** For a flooding event or other incident where DOD/USACE has jurisdictional authority and/or responsibilities for directing or managing major aspects of the response, DOD/USACE may be requested to provide a senior official to participate in the Unified Coordination Group.

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- **USACE Division Command:** A DOD/USACE division is designated the responsibility for the execution of the ESF #3 missions issued to DOD/USACE. The USACE Division Commander may designate a Division Forward Commander to carry out the Division Commander's responsibilities for managing the resources to effectively and efficiently execute response and recovery missions. For missions requiring significant staffing, DOD/USACE may receive a mission assignment from DHS/FEMA to establish field offices to support the mission execution.

ACTIONS

Headquarters

Upon activation of ESF #3:

- The UOC:
  - Notifies the Assistant Secretary of Defense for Homeland Defense and Americas' Security Affairs, the Joint Director of Military Support, and the Army Operations Center.
  - Provides situation reports to the Army Operations Center and the appropriate combatant command.
- The USACE ESF #3 Team Leader is designated and deployed to the NRCC.
- The UOC coordinates the activation and deployment of national DOD/USACE teams and resources, as required.

Regional and Field

Upon activation of ESF #3, the DOD/USACE Division Emergency Operations Center notifies the USACE Division Commander. The Division Commander coordinates with Headquarters USACE for the appropriate ESF #3 personnel support.

The UOC designates and deploys an ESF #3 Team Leader to the RRCC and/or the JFO, as required, to coordinate the ESF #3 mission execution.

ESF #3 Incident Actions

Activities within the ESF #3 function include but are not limited to the following:

- Coordination and support of infrastructure risk and vulnerability assessments.
- Participation in preincident activities, such as the positioning of assessment teams and contractors, and deploying advance support elements.
- Participation in postincident assessments of public works and infrastructure to help determine critical needs and potential workloads.
- Implementation of structural and nonstructural mitigation measures, including deployment of protective measures, to minimize adverse effects or fully protect resources prior to an incident.
- Execution of emergency contracting support for life-saving and life-sustaining services, to include providing potable water, ice (for life-saving/life-sustaining purposes such as medical-related requirements), emergency power, and other emergency commodities and services.

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- Providing assistance in the monitoring and stabilization of damaged structures and the demolition of structures designated as immediate hazards to public health and safety. (For chemical, biological, and radiological weapons of mass destruction incidents, demolition is coordinated with ESF #10 - Oil and Hazardous Materials Response.) Also, providing structural specialist expertise to support inspection of mass care facilities and urban search and rescue operations.

- Providing emergency repair of damaged infrastructure and critical public facilities (temporary power, emergency water, sanitation systems, etc.). Supporting the restoration of critical navigation, flood control, and other water infrastructure systems, including drinking water distribution and wastewater collection systems. Where appropriate, activities to restore infrastructure (e.g., debris removal, temporary housing mission, etc.) are closely coordinated with ESF #11 – Agriculture and Natural Resources. As appropriate, ESF #3 requests ESF #11 to provide technical support to help facilitate ESF #3 efforts to obtain necessary regulatory (cultural and environmental) clearances for infrastructure restoration activities. ESF #3 will seek technical assistance from the DHS/FEMA Disability Coordinator to ensure that accessibility standards are addressed during infrastructure restoration activities.

- ESF #3 may be responsible for managing, monitoring, and/or providing technical advice in the clearance, removal, and disposal of debris from public property and the reestablishment of ground and water routes into impacted areas. The scope of actions related to debris may include waste sampling, classification, packaging, transportation, treatment, demolition, and disposal. For purposes of ESF #3, the term "debris" includes general construction debris that may contain inherent building material contaminants, such as asbestos and paint. Debris may include livestock or poultry carcasses and/or plant materials. When ESF #3 is activated for a debris mission, ESF #3 may also: collect, segregate, and transport to an appropriate staging or disposal site hazardous materials that are incidental to building demolition debris, such as household hazardous waste and oil and gas from small motorized equipment; remove and dispose of Freon from appliances; and remove, recycle, and dispose of electronic goods. (The removal of hazardous material containers that may have become intermingled with construction debris, such as drums, tanks, and cylinders containing oil and hazardous materials, is managed under ESF #10.)

- The management of contaminated debris (e.g., chemical, biological, radiological, or nuclear contamination) will be a joint effort with ESF #10 and FEMA. The scope of actions related to contaminated debris may include waste sampling, classification, packaging, transportation, treatment, demolition, and disposal of contaminated debris and soil. For purposes of ESF #3, contaminated debris is intended to mean debris (e.g., general construction debris/rubble) that is being addressed within the debris zone and to support the overall objectives of ESF #3, such as clearing roads and public property.

- ESF #3 may also be responsible for managing, monitoring, and/or providing technical advice in the demolition and subsequent removal and disposal of buildings and structures contaminated with chemical, biological, radiological, and nuclear (CBRN) elements, in consultation with ESF #10. The scope of actions may include air monitoring and sampling, waste sampling, classification, packaging, transportation, treatment (onsite and offsite), demolition, and disposal (onsite and offsite). Except where necessary to address structural stability or other imminent threats, such demolition actions are taken after incident decisionmakers have had an opportunity to evaluate options for site cleanup and have selected demolition as the desired cleanup approach. (ESF #10 leads the identification, analysis, selection, and implementation of cleanup actions for incidents where Federal assistance is requested for hazardous materials environmental cleanup (except for certain facilities and materials owned, operated, or regulated by other Federal departments and

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agencies). Decontamination of buildings or infrastructure would be led by ESF #10.)

- Providing coordination and technical assistance (to include vessel removal, significant marine debris removal, and hydrographic survey) to effect the rapid recovery and reconstitution of critical waterways, channels, and ports.

- Providing technical assistance to include engineering expertise, construction management, contracting, inspection of private/commercial structures, and real estate services.

- Implementation and management of the DHS/FEMA Public Assistance Program and other recovery programs between and among Federal, State, tribal, and local officials, to include efforts to permanently repair, replace, or relocate damaged or destroyed public facilities and infrastructure. Recovery activities are coordinated with ESF #14 – Long-Term Community Recovery.

RESPONSIBILITIES

- **ESF Coordinator:** DOD/USACE is designated as the coordinator for ESF #3. As ESF coordinator, DOD/USACE coordinates meetings, plans, exercises, training, and other activities with DHS/FEMA, the private sector, and the ESF #3 support agencies.

- **Primary Agency – Response:** DOD/USACE, as the primary ESF #3 agency for response, provides direction and coordination of ESF #3 response-related activities and resources. DOD/USACE has developed an ESF #3 Field Guide that provides information on tools and processes used for ESF #3 mission support.

- **Primary Agency – Recovery:** DHS/FEMA, as the primary ESF #3 agency for recovery, assigns an ESF #3 Public Assistance Officer to coordinate and manage interagency infrastructure recovery programs and the DHS/FEMA Public Assistance Program. DHS/FEMA maintains and provides a Public Assistance Guide that contains information regarding program eligibility, application processes, and project requirements.

SUPPORT AGENCIES

Agency	Functions
Department of Agriculture (USDA)	- If available, provides engineering and contracting/procurement personnel and equipment to assist in emergency removal of debris, demolition, temporary protection of roads and bridges, temporary protection of essential public facilities, water supply, and sanitation. ESF #4 – Firefighting or the USDA/Forest Service Disaster and Emergency Operations Branch is the contact for this support. - Provides technical personnel to evaluate damage to water control facilities. The Natural Resources Conservation Service is the regional contact for this support.

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Agency	Functions
Department of Commerce	**National Institute of Standards and Technology:** Through the Interagency Committee on Seismic Safety in Construction, Building, and Fire Research Laboratory, provides direct technical support and advice on procurement of external consulting services for assessing the structural and fire safety of damaged buildings and lifelines (public works and utilities).
	National Oceanic and Atmospheric Administration y Provides hydrographic survey assets and expertise as part of a coordinated strategy of response/restoration of critical waterways, channels, and ports. y Provides scientific support in assessing impact to the coastal zone using population data, storm track, known areas of coastal damage, and general information on currents and winds to predict areas of high debris density and abundance.
Department of Defense	**Navy Supervisor of Salvage and Diving** y Provides expertise and conducts/supports specialized salvage/wreck removal operations as part of a coordinated response and restoration strategy. y Exercises and manages regional standing emergency salvage contracts to quickly draw upon the required resources of the commercial salvage industry. y Accesses and coordinates the U.S. Navy's hydrographic survey assets and capabilities. y When requested, coordinates salvage and wreck removal operations.
Department of Energy	y Gathers, assesses, and shares information on energy system damage and estimations on the impact of energy system outages within affected areas. y Provides information concerning the energy restoration process such as projected restoration schedules, percent completion of restoration, geographic information on the restoration, and other information as appropriate.
	National Nuclear Security Administration: Enables radiologically contaminated debris management activities by coordinating and/or providing resources, assessments, data, expertise, technical assistance, monitoring, and other appropriate support.
Department of Health and Human Services (HHS)	y Supplies engineering and environmental health personnel to assist, in conjunction with the Environmental Protection Agency (EPA), in assessing the status of water, wastewater, and solid-waste facilities. y Provides guidance related to health problems associated with hazardous materials. y Assists in determining the suitability for human consumption of water from local sources. y Enables contaminated debris management activities by coordinating and/or providing resources, assessments, data, expertise, technical assistance, monitoring, and other appropriate support. y Provides situational awareness regarding water and wastewater needs at critical health care and other CIKR sector facilities.

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Agency	Functions
Department of Homeland Security	**Office of Infrastructure Protection** y Supports ESF #3 infrastructure protection and mitigation missions by providing infrastructure risk and vulnerability assessments in response to actionable intelligence and other information. y Through the Infrastructure Liaison, provides situational awareness and prioritized recommendations concerning the recovery and restoration of the associated CIKR sectors supported by this ESF.
	U.S. Coast Guard (USCG) y Marks and coordinates with DOD/USACE for removal of obstructions declared to be hazards to navigation. y Assists in vessel salvage and removal of vessel debris. This includes coordinating and/or providing resources, assessments, expertise, technical assistance, monitoring, and other appropriate support. Note: DHS/USCG has statutory authority/responsibility to oversee oil and hazardous substance pollution response operations associated with debris removal/salvage operations in the Coastal Zone in accordance with the National Contingency Plan (40 CFR Part 300).
Department of the Interior	**Bureau of Reclamation** y Provides engineering support to assist in evaluating damage to water control systems such as dams, levees, and water delivery facilities and structures. y Provides personnel to assist in damage assessment, structural inspections, debris clearance monitoring, and restoration of facilities in general. y Provides technical assistance in contract management, contracting, procurement, construction inspection, and environmental and archeological assessments.
	Bureau of Indian Affairs: Provides tribal nation liaisons, as described in the Tribal Relations Support Annex, if required.
	Office of Wildland Fire Coordination: If available, provides appropriate engineering and contracting/procurement personnel and equipment to assist in emergency removal of debris, demolition, repair of roads and bridges, temporary repair of essential public facilities, water supply, and sanitation. Resources will be assigned commensurate with each unit's level of training and the adequacy and availability of equipment. ESF #4 is the contact for this support.
Department of Labor	Through the Occupational Safety and Health Administration, provides worker safety advice, assistance, and policy support for debris removal, building demolition, and other ESF #3 activities.
Department of State	When requested, provides liaison to DOD/USACE in the event of incidents having potential international implications. In accordance with the International Coordination Support Annex, coordinates international offers of public works and engineering assistance and support.
Department of Transportation	y Provides technical expertise and assistance for repair and restoration of transportation infrastructure (e.g., highways, bridges, tunnels, transit systems, port facilities, and railways) and provides advice and assistance on the transportation of contaminated materials. y Provides engineering personnel and support to assist in damage assessment, structural inspections, debris clearing, and restoration of the Nation's transportation infrastructure. y Administers special funding that can be used for repair or reconstruction of major highway facilities as well as grant programs for transit systems and railroads that could be used for repair and rehabilitation of damaged infrastructure.

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Agency	Functions
Department of Veterans Affairs	Provides engineering personnel and support, including design estimating and construction supervision, for repair, reconstruction, and restoration of eligible facilities.
Environmental Protection Agency	y Conducts infrastructure protection activities for drinking water and water treatment agencies in the water sector, in accordance with its responsibilities as the designated Sector-Specific Agency for this sector as described in Homeland Security Presidential Directive 7. y Assists, in conjunction with HHS, in determining the suitability for human consumption of water from local sources and in identifying hazardous materials having the potential to affect drinking water supplies. y Assists in identifying critical water and wastewater needs, including personnel, electrical power, and treatment chemicals. y Assists, in conjunction with State/tribal primacy agencies and permitting authorities, in determining the operating status of water and wastewater systems. y Provides assistance to State solid waste agencies regarding municipal solid waste landfills and construction and demolition waste landfills. Provides technical assistance for nonhazardous waste management, including debris management and recycling/reuse opportunities. Assists State solid waste agencies with assessments of staging/storage areas, solid waste facilities, and wastewater facilities; environmental sampling and monitoring; and inspections, resources, data, and other support as appropriate. y Identifies locations of, and provides safety guidance for, areas affected by hazardous materials. y For chemical, biological, and radiological weapons of mass destruction incidents, coordinates with ESF #3 on management of contaminated debris and demolition. y Assists in investigation and intelligence analysis for hazardous materials incidents involving contaminated water and wastewater systems, pursuant to existing EPA statutory authorities. y Provides expertise on waste and debris disposal options.
General Services Administration	y Provides resource support to assist in damage assessment, structural inspections, debris clearance monitoring, and restoration of facilities in general. y Provides technical assistance in construction inspection and environmental and archeological assessments.
Nuclear Regulatory Commission	Assists radiological contaminated debris management activities by coordinating and/or providing resources, assessments, data, expertise, technical assistance, monitoring, and other appropriate support.
Tennessee Valley Authority	Provides personnel to assist in damage assessment, structural inspections, debris clearance monitoring, and restoration of facilities in general.
American Red Cross	Works with DOD/USACE; DHS/FEMA; other Federal, State, tribal, and local government entities; and other NGOs to ensure integration of commodities requirements and distribution processes into mass care operations.
Corporation for National and Community Service	Provides teams of trained National Service Participants (including AmeriCorps members, Learn and Serve America volunteers, and Retired and Senior Volunteer Program volunteers) to carry out canvassing, needs assessment, information distribution, debris clearance, temporary roof repair, elimination of specified health/safety hazards, and other response and recovery activities, including support commodity distribution, in disadvantaged communities and for special needs residents.

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To: Traylor, Patrick[traylor.patrick@epa.gov]
From: Bodine, Susan
Sent: Wed 9/27/2017 1:15:17 PM
Subject: RE: RPM Act TA
S.203 EPA Technical Assistance Note (DRAFT September 27 2017).docx

See my comments.

From: Traylor, Patrick
Sent: Wednesday, September 27, 2017 8:51 AM
To: Bodine, Susan <bodine.susan@epa.gov>
Subject: RPM Act TA

Susan:

Here's what we've developed; AED is on board with this language and explanation. I'd like to collect your comments and revisions before dropping it into the normal OCIR process.

Patrick

Patrick Traylor

Deputy Assistant Administrator

Office of Enforcement and Compliance Assurance

U.S. Environmental Protection Agency

(202) 564-5238 (office)

(202) 809-8796 (cell)

To: Ferguson, Lincoln[ferguson.lincoln@epa.gov]
Cc: Jackson, Ryan[jackson.ryan@epa.gov]; Patrick Traylor (traylor.patrick@epa.gov)[traylor.patrick@epa.gov]; Bowman, Liz[Bowman.Liz@epa.gov]; Lyons, Troy[lyons.troy@epa.gov]; Samantha Dravis (dravis.samantha@epa.gov)[dravis.samantha@epa.gov]
From: Bodine, Susan
Sent: Mon 11/27/2017 8:05:41 PM
Subject: TransCanada Spill Update briefing
Keystone Pipeline Spill Briefing (November 27 2017).docx

To: Lovell, Will (William)[lovell.william@epa.gov]
From: Bodine, Susan
Sent: Mon 11/20/2017 10:17:45 PM
Subject: FW: EPA responses to EPW letters from last Congress
05.19.2015 McCarthy re EIP TRI.pdf
06.15.2015 McCarthy ESA & GHG.pdf
09.16.2016 EPA McCarthy RFS.pdf

From: Olsen, Elizabeth (EPW) [mailto:Elizabeth_Olsen@epw.senate.gov]
Sent: Monday, November 20, 2017 3:26 PM
To: Bodine, Susan <bodine.susan@epa.gov>; Russell, Richard (EPW) <Richard_Russell@epw.senate.gov>; Horner, Elizabeth (EPW) <Elizabeth_Horner@epw.senate.gov>
Subject: RE: EPA responses to EPW letters from last Congress

Susan,

Below is a list of the unanswered correspondence from EPA 2015-2016. I have attached these unanswered letters to the email.

Let me know what else you need from us. Thanks!

EPA Unanswered Correspondence:

2015

05/19/15: Environmental Integrity Project- Toxics Release Inventory

06/15/15: Green House Gas & ESA

2016

09/16/2016: Enforcement of Renewable Fuel Standard

Elizabeth "Lizzy" Olsen, J.D.

Majority Director of Operations

Senate Committee on Environment and Public Works

C: (202) 407-3841

O: (202)224-6176

From: Bodine, Susan [mailto:bodine.susan@epa.gov]
Sent: Monday, November 20, 2017 1:00 PM
To: Olsen, Elizabeth (EPW) <Elizabeth_Olsen@epw.senate.gov>; Russell, Richard (EPW) <Richard_Russell@epw.senate.gov>; Horner, Elizabeth (EPW) <Elizabeth_Horner@epw.senate.gov>
Subject: RE: EPA responses to EPW letters from last Congress

Thanks!

The question pertains to the last administration – so not 2017.

From: Olsen, Elizabeth (EPW) [mailto:Elizabeth_Olsen@epw.senate.gov]
Sent: Monday, November 20, 2017 12:58 PM
To: Bodine, Susan <bodine.susan@epa.gov>; Russell, Richard (EPW) <Richard_Russell@epw.senate.gov>; Horner, Elizabeth (EPW) <Elizabeth_Horner@epw.senate.gov>
Subject: RE: EPA responses to EPW letters from last Congress

Hi Susan,

I had a list from last congress but it probably hasn't been updated since August of 2016. It was relatively short around 6 letters, but I can update it and get back to you. Regarding 2017 letters, I have not yet endeavored on those correspondence but I could work on that if it is helpful, as well.

Best,

Elizabeth "Lizzy" Olsen, J.D.

Majority Director of Operations

Senate Committee on Environment and Public Works

C: (202) 407-3841

O: (202)224-6176

From: Bodine, Susan [mailto:bodine.susan@epa.gov]
Sent: Friday, November 17, 2017 4:29 PM
To: Russell, Richard (EPW) <Richard_Russell@epw.senate.gov>; Horner, Elizabeth (EPW) <Elizabeth_Horner@epw.senate.gov>; Olsen, Elizabeth (EPW) <Elizabeth_Olsen@epw.senate.gov>
Subject: EPA responses to EPW letters from last Congress

Do you have a list of letters to EPA from last Congress for which the responses were considered non-responsive?

I think we talked about creating such a list and getting answers, but I don't recall if that was ever pulled together.

Our policy shop is asking.

Hope everyone is doing well.

Susan

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United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510–6175

May 19, 2015

The Honorable Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Dear Administrator McCarthy:

On January 7, 2015, the Environmental Integrity Project (EIP) and other environmental organizations filed a Complaint for Declaratory and Injunctive Relief in the United States District Court for the District of Columbia seeking to compel the Environmental Protection Agency (EPA) to act on an EIP petition. This EIP petition was submitted on October 24, 2012, requesting EPA to add the Oil and Gas Extraction Industry, Standard Industrial Classification Code 13, to the list of facilities required to report under the Toxics Release Inventory (TRI). We believe that EPA should act immediately to reject the October 2012 EIP petition because it is frivolous, inappropriate, and unnecessary. An EPA denial would both respond to the initial petition and render the complaint moot.

The initial EIP petition argues that EPA should expand the current TRI to include the Oil and Gas Extraction industry. Such an action runs counter to the intent of the TRI and would further diminish the limited value that the current TRI serves, which we believe should be focused more narrowly. EPA's website describes the history of the TRI:

> The TRI Program was created in response to several events that raised public concern about local preparedness for chemical emergencies and the availability of information on hazardous substances.
>
> On December 4, 1984, a cloud of extremely toxic methyl isocyanate gas escaped from a Union Carbide Chemical plant in Bhopal, India. Thousands of people died that night in what is widely considered to be the worst industrial disaster in history. Thousands more died later as a result of their exposure, and survivors continue to suffer with permanent disabilities. In 1985, a serious chemical release occurred at a similar plant in West Virginia.
>
> In 1986, Congress passed the Emergency Planning and Community Right-to-Know Act (EPCRA) to support and promote emergency planning and to provide the public with information about releases of toxic chemicals in their community. Section 313 of EPCRA established the Toxics Release Inventory.

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When the Senate deliberated on the structure of the TRI, it rejected a broad scope and focused the inventory on manufacturing operations – then defined as Standard Industrial Classification (SIC) Codes 20 through 39[1] – with limits on the size of facilities that reported. These constraints were designed to assure that facilities posing a potentially significant threat to populated areas were the targeted reporters, and this structure was retained in the final legislation.

The initial inventories produced results focused on these manufacturing facilities that are typically in populated areas because of the sizeable work forces they employ. However, in 1997, EPA strayed from the appropriate TRI focus and chose to use its authority to expand the facilities required to report under the inventory, adding seven new categories of industries to the reporting scope. These industry groups are metal mining, coal mining, electric utilities, commercial hazardous waste treatment, chemical and allied products wholesale, petroleum bulk terminals and plants (also known as stations) - wholesale, and solvent recovery services.

This action, particularly the inclusion of metal mining, diminished the value of the TRI. The metal mining industry must submit as "releases" on their TRI reports the trace amounts of naturally-occurring metal and metal compounds that are present in the rock and dirt that is moved and managed at a mine site. As EPA notes in the 2011 TRI National Analysis Overview:

> The vast majority of its total disposal or other releases are on-site land disposals and are a result of very small concentrations of metals naturally present in the ore body.

In fact, 85 to 99 percent of what the metal mining industry reports consists of the management of these naturally-occurring substances. Similarly, the overwhelming majority of all mining industry releases are reported to on-site land-based units. These releases are characterized by low concentrations of chemicals in huge volumes of inert materials.

As a result of EPA's decision to expand the TRI in 1997, the information available to the public, through TRI, is far from the original congressional intent. This shift is clearly evident in an EPA observation in the recent release of the 2013 TRI:

> In 2013, the metal mining sector reported the largest quantity of total disposal or other releases, accounting for 47% of the releases for all industries. It also represents almost three quarters (71%) of the on-site land disposal for all sectors in 2013.

Almost half of the releases reported on the TRI are from the disposal of rock and dirt with minor amounts of toxic chemicals. Consequently, the value of information from the initial inventories has been cut in half.

At the same time that EPA moved to add metals mining to the TRI, it chose not to consider oil and gas exploration and production facilities. In explaining its decision not to propose expansion to oil and gas exploration and production facilities, EPA stated rather straightforward reasons:

---

[1] SIC Codes have subsequently been replaced by the North American Industry Classification System (NAICS).

> This industry group is unique in that it may have related activities located over significantly large geographic areas. While together these activities may involve the management of significant quantities of EPCRA section 313 chemicals in addition to requiring significant employee involvement, taken at the smallest unit (individual well), neither the employee nor the chemical thresholds are likely to be met.[2]

Despite substantial new development of American oil and natural gas, these realities previously cited by EPA remain. Consequently, nothing has changed since the inception of the TRI to suggest that its purposes would be served by adding another high volume, low toxicity waste industry – particularly one that would overwhelmingly fall outside the reporting requirement thresholds.

For these reasons, we strongly believe that EPA should reject the EIP petition as soon as possible.

Sincerely,

James M. Inhofe
Chairman

David Vitter
U.S. Senator

M. Michael Rounds
U.S. Senator

[2] 61 Fed. Reg. 33588, 33592 (June 27, 1996).

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Committee on Natural Resources
Washington, DC 20515

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DAVID WATKINS
DEMOCRATIC STAFF DIRECTOR

June 15, 2015

The Honorable Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Administrator McCarthy:

We write regarding two proposed Environmental Protection Agency ("EPA") rules to reduce carbon dioxide emissions from power plants as part of President Obama's Climate Action Plan. These rules will regulate greenhouse gas ("GHG") emissions from both existing[1] and new[2] stationary electric utility generating units and are expected to have wide-ranging environmental and economic impacts. In promulgating these Clean Air Act rules, EPA must carefully and lawfully consider all the effects of its rulemaking, including the effects on endangered and threatened species listed under the Endangered Species Act ("ESA"). However, as the rulemaking process concludes, it appears that EPA has not satisfied its obligations under section 7 of the ESA.

The House Committee on Natural Resources and the Senate Committee on Environment and Public Works ("EPW") have jurisdiction over the implementation of the ESA. The EPW Committee also has jurisdiction over EPA's programs in general and the Clean Air Act in particular. Both Committees have been conducting oversight on EPA's lack of consultation in connection with these rules.

[1] Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830 (proposed June 18, 2014).
[2] Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 1430 (proposed Jan. 8, 2014).

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On March 6, 2014, a letter was sent to EPA and the Fish and Wildlife Service ("FWS") by members of the EPW Committee asking 17 questions about the need for and scope of section 7 consultation for the proposed rule for new power plants. The response from the FWS on May 27, 2014, confirmed that EPA had not requested to engage in ESA consultation. EPA's response, dated June 20, 2014, said only that EPA would comply with the ESA. Neither response explained EPA's omission of a "may affect" determination for the proposed rule for new power plants nor included meaningful information necessary to address the EPW Committee's legitimate oversight concerns.

During a March 19, 2015, hearing before the Natural Resources Committee, FWS Director Dan Ashe testified that EPA had not initiated consultation with FWS on the impacts of the two power plant rules on ESA-listed species, including the endangered manatee.[3] Following that hearing, a letter was sent to Director Ashe that sought to clarify whether FWS intended to request that EPA enter into ESA consultation with the FWS on the two rules.[4]

In his response, dated April 20, 2015, Director Ashe confirmed that FWS had not requested that EPA initiate consultation on the power plant rules and did not intend to do so "because . . . EPA has full knowledge of their Section 7 responsibilities."[5] This response raises more questions than it answers.

According to section 7 of the ESA, federal agencies must consult with the appropriate Service whenever a discretionary agency action, including a rulemaking, "may affect" a listed species or designated critical habitat.[6] Federal courts routinely enjoin agency actions, including some taken by EPA, for failure to consult pursuant to section 7 of the ESA.[7]

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[3] *Examining the Spending Priorities and Missions of the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration in the President's FY 2016 Budget Proposal: Hearing Before the Subcomms. on Federal Lands and Water, Power and Oceans of the H. Comm. on Natural Resources*, 114th Cong. (2015). The manatee was first listed under the ESA in 1967. *See* Endangered Species, 32 Fed. Reg. 4001 (Feb. 24, 1967).

[4] Letter from Rob Bishop, Chairman, H. Comm. on Natural Resources, to Dan Ashe, Director, U.S. Fish and Wildlife Service (Apr. 2, 2015), http://naturalresources.house.gov/uploadedfiles/lettertoashe_4_2_15.pdf.

[5] Letter from Dan Ashe, Director, U.S. Fish and Wildlife Service, to Rob Bishop, Chairman, H. Comm. on Natural Resources (Apr. 20, 2015), http://naturalresources.house.gov/uploadedfiles/asheresponseletter.pdf.

[6] Endangered Species Act §7, 16 U.S.C. § 1536. The agency must consult with the National Marine Fisheries Service ("NMFS") if the proposed action will affect marine species, or the FWS if the action will affect non-marine species.

[7] *See, e.g.*, W. Watersheds Project v. Kraayenbrink, 632 F.3d 472 (9th Cir. 2011) (enjoining amendments to grazing regulations); Wash. Toxics Coal. v. Envtl. Prot. Agency, 413 F.3d 1024 (9th Cir. 2005) (enjoining EPA's registration of pesticides pending compliance with section 7). The ESA's citizen suit provision explicitly approves injunctions for "violation[s] of any provision of this Act or regulation issued under the authority thereof." 16 U.S.C. § 1540(g)(1)(A).

Further, ESA regulations task each federal agency with "review[ing] its actions at the earliest possible time to determine whether any action *may affect* listed species or critical habitat."[8] According to the FWS's Endangered Species Consultation Handbook, which is intended to guide federal agencies through the ESA's consultation requirements, it is appropriate for an agency to make a "may affect" determination "when [its] proposed action may pose **any** effects on listed species or designated critical habitat."[9] If the agency determines that its proposed action may have *any* effect on a listed species, the agency is required to consult with the appropriate Service – even if the effects are beneficial.[10]

In its "may affect" analysis for the existing power plant rule, EPA determined that the rule is likely to have "positive" effects because it will reduce overall GHG emissions.[11] Citing previous EPA analysis that found it was impossible to determine the effects of reduced GHGs on specific species, EPA also concluded that the reduced GHG emissions brought about by the new rule would cause only "very small changes."[12] Additionally, EPA analogized the "remote" effects of the new rule to the Ninth Circuit Court of Appeals ruling in *Ground Zero Center for Non-Violent Action v. U.S. Dept. of Navy*, where the court found consultation on the possibility of an accidental missile explosion was unnecessary in part because the chance of the explosion occurring was infinitesimal.[13] Additionally, when EPA asserted that the effects are "very small changes" and "remote" it cited a Department of the Interior ("DOI") memorandum regarding the

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[8] 50 C.F.R. § 402.14(a) (emphasis added).

[9] U.S. Fish and Wildlife Service, Endangered Species Conservation Handbook xvi (emphasis in original).

[10] Karuk Tribe v. U.S. Forest Serv., 681 F.3d 1006, 1011 (9th Cir. 2012) ("The ESA requires consultation with the Fish and Wildlife Service or the NOAA Fisheries Service for any 'agency action' that 'may affect' a listed species or its critical habitat."). *See also* Conservation Cong. v. U.S. Forest Serv., No. CIV. S-13-0832, 2013 U.S. Dist. LEXIS 127671, at *55, 60 (E.D. Cal. Sept. 6, 2013) (explaining that section 7 consultation is required "[s]o long as a [listed species] is present" and that "[e]ven a beneficial effect on the species or habitat 'triggers the requirement.'").

[11] Carbon Pollution Emission Guidelines for Existing Stationary Sources, *supra* note 1, at 34,933.

[12] *Id.* at 34,934. In the ESA section of the proposed rule for existing power plants, EPA refers to the effects of its action as "very small" and "remote." These terms appear to be drawn from consultation regulations promulgated under the previous administration. *See* Interagency Cooperation Under the Endangered Species Act, 73 Fed. Reg. 76,272 (Dec. 16, 2008). *See also* KRISTINA ALEXANDER & M. LYNNE CORN, CONG. RESEARCH SERV., RL 34641, CHANGES TO THE CONSULTATION REGULATIONS OF THE ENDANGERED SPECIES ACT (ESA) 9 (2009). However, those regulations were rescinded in 2009 shortly after President Obama took office and the 1986 consultation rules were reinstated. *See* Interagency Cooperation Under the Endangered Species Act, 74 Fed. Reg. 20,421 (May 4, 2009). EPA's apparent reliance on a rescinded rule and related legal guidance (i.e., the 2008 DOI memorandum, *infra* note 14) casts doubt on Director Ashe's confidence in EPA's "full knowledge of their Section 7 responsibilities."

[13] What EPA fails to mention is that section 7 consultation was not required primarily "because the Navy lacks the discretion to cease Trident II operations at Bangor for the protection of the threatened species." Ground Zero Ctr. for Non-Violent Action v. U.S. Dept. of Navy, 383 F.3d 1082, 1092 (9th Cir. 2002). The court found that President Clinton – not the Navy – determined where the submarine base would be located, so the risks inherent to Trident missiles were attributable to the President's decision and not to the Navy's action. *Id.*

polar bear[14] and a prior EPA rule.[15] EPA conveniently did not mention that these analyses have substantial focus upon the difficulty of tracing the effects of GHG emissions from a single source – not from the entire electricity generating capacity of the United States.

After dismissing these "positive," "very small," and "remote" effects of the rule due to overall reductions in GHG emissions, EPA then determined that section 7 consultation was unnecessary.[16]

It is clear that EPA entirely neglected to assess the ground-level effects of its regulation. The most recent government analysis projects that retirements of coal-fired power plants will double by 2020 as a result of the rule.[17] EPA itself has conducted analysis that also anticipates the early retirement of coal-fired generating units.[18] Disruption and early retirement of operational power plants are precisely the kind of real-world impacts that EPA must assess before promulgating a rule. Specifically, EPA must analyze the effects of its action – including the closure of power plants – through the lens of the ESA.

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[14] Memorandum from David Longly Bernhardt, Solicitor, U.S. Department of the Interior re: "Guidance on the applicability of the Endangered Species Act's Consultation Requirements to Proposed Actions Involving the emissions of Greenhouse Gases" (Oct. 3, 2008).

[15] Environmental Protection Agency, Light Duty Vehicle Greenhouse Gas Standards and Corporate Average Fuel Economy Standards Response to Comment Document for Joint Rulemaking at 4-102 (Docket EPA-OAR-HQ-2009-4782).

[16] While EPA apparently feels that the effects of GHGs on species are negligible, the Services responsible for listing species under the ESA have found that climate change or global warming affects a plethora of endangered species. According to recovery plans from the USFWS and NMFS, the following species are or may be affected by climate change or global warming: Akiapolaau, Akohekohe, Atlantic salmon, Bay checkerspot butterfly, Butte County meadowfoam, Chinook salmon, Chiricahua leopard frog, chum salmon, Colusa grass, conservancy fairy shrimp, Contra Costa goldfields, delta green ground beetle, desert tortoise, few-flowered navarretia, fleshy owl's clover, Gowen cypress, green's tuctoria, hairy orcutt grass, Hawaii 'Akepa, Hawaii creeper, Holmgren milk-vetch, Hoover's broomspurge, Karner blue, Kauai akialoa, Kauai 'o'o, Lake County stonecrop, large Kauai thrush, Laysan duck, Loch Lomond coyote-thistle, longhorn fairy shrimp, many-flowered navarretia, mat-forming quillwort, Maui 'akepa, Maui parrotbill, Moloka'i creeper, Moloka'i thrush, Mount Graham red squirrel, Nukupu'u, Oahu alauahio, Oahu 'elepaio, orca,'O 'u, palila, Pitcher's thistle, Po'ouli, Puaiohi, Quino checkerspot butterfly, Sacramento orcutt grass, San Joaquin Valley orcutt grass, Shivwitz milk-vetch, short-tailed Albatross, slender orcutt grass, soft-leaved Indian paintbrush, Solano grass, Spalding's catchfly, sperm whale, steelhead trout, Steller sea-lion, vernal pool fairy shrimp, vernal pool tadpole shrimp, water Howellia, white abalone, whooping crane. Recovery plans can be found at: http://www.fws.gov/endangered/species/recovery-plans.html.

[17] U.S. Energy Information Administration, Analysis of the Impacts of the Clean Power Plan 16 (May 2015) ("Projected coal plant retirements over the 2014-40 period, which are 40GW in the AEO2015 Reference case (most before 2017), increase to 90 GW (nearly all by 2020) in the Base Policy case (CPP).").

[18] *Compare* IPM System Summary Report, Base Case (EPA-HQ-OAR-2013-0602-0223) *with* IPM System Summary Report, Option 1 State (EPA-HQ-OAR-2013-0602-0227). In all scenarios, EPA expects power sector coal use to decline. *See* Summary of IPM Analysis of Individual Building Blocks for 111(d) (EPA-HQ-OAR-2013-0602-0471).

One power plant that is likely to retire at least some of its coal-powered generating units due to EPA's rule is Big Bend Power Station near Tampa, Florida.[19] Big Bend has been designated as a primary warm-water manatee refuge,[20] is surrounded by a manatee sanctuary,[21] and has a manatee protection plan appended to its National Pollutant Discharge Elimination System ("NPDES") permit.[22] Generation at the Crystal River Plant, another coal-fired power plant in Florida that has been designated as a manatee refuge[23] and has a manatee protection plan appended to its NPDES permit,[24] may also be disrupted by the rule.

Clearly, power plants like Big Bend and Crystal River are critical to the survival of the manatee. The FWS's own Manatee Recovery Plan repeatedly stresses the importance of the warm-water refuges created by the plants. In fact, one of the primary objectives of the Service's Manatee Recovery Plan is to "protect . . . manatee habitats," including "industrial warm-water refuges."[25] FWS also estimates that almost two-thirds of manatees rely on power plants when the water temperature plunges.[26] Without a warm-water refuge, manatees that are subjected to cold experience "skin lesions, fat depletion, internal abscesses, gastrointestinal disorders, constipation and secondary infections" and death.[27]

A regulation that causes designated manatee refuges like Big Bend or Crystal River to shut down or alter their operations would significantly and adversely affect the endangered manatee.[28]

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[19] Sean Cockerham, *Do it for the manatees, GOP lawmaker says of protecting coal plants*, MCCLATCHY DC, Mar. 19, 2015 ("Tampa Electric spokeswoman Cherie Jacobs said the four units at the Big Bend Power Station, a major attraction for manatees and tourists, are currently expected to last from between 2035 and 2050. But the proposed new carbon pollution rule could result in 'one or more units' closed in 2025 instead, she said.").

[20] U.S. Fish and Wildlife Service, Florida Manatee Recovery Plan 16-17 (2001), http://www.fws.gov/northflorida/Manatee/Recovery%20Plan/2001_FWS_Florida_Manatee_Recovery_Plan.pdf.

[21] 50 C.F.R. § 17.108.

[22] Big Bend Power Station, NPDES Permit No. FL0000817 ("The Permittee shall continue compliance with the facility's Manatee Protection Plan approved by the Department on August 6, 2003, and as amended thereafter.").

[23] Florida Manatee Recovery Plan, *supra* note 20, at 16-17.

[24] Crystal River Plant, NPDES Permit No. FL0000159 and FL0036366.

[25] Florida Manatee Recovery Plan, *supra* note 20, at 83-84.

[26] *Id.* at 28.

[27] Florida Fish and Wildlife Conservation Commission, Florida Manatee Cold-related Unusual Mortality Event, January-April 2010, Final Report iii (Apr. 19, 2011), http://myfwc.com/media/1536184/2010_Manatee_Cold_related_UME_Final.pdf.

[28] Other likely effects of EPA's power plant rules, including increased renewable energy generation, may also affect ESA-protected species. For example, FWS cites an article showing that for every megawatt of energy generated by wind turbines in the United States and Canada, 11.6 bats will die annually. Fish and Wildlife Service, Indiana Bat Fatalities at Wind Energy Facilities (2014), http://www.fws.gov/midwest/wind/wildlifeimpacts/inbafatalities.html (citing Paul M. Cryan, *Wind Turbines as Landscape Impediments to the Migratory Connectivity of Bats*, 41 ENVTL. L. 355, 364 (2011)).

We are astounded that EPA omitted any reference to the ESA or the section 7 consultation requirement in the proposed rule for new power plants.[29] It is unclear why EPA would consider the impacts of one rule on listed species and conclude there were "positive" effects from GHG reductions, but decline to consider the effects of the companion rule, which will also reduce GHG emissions.[30]

In order for the Committees to better understand EPA's determination that section 7 consultation was unnecessary for the proposed rule for existing power plants, as well as the decision not to include any ESA analysis in the proposed rule for new power plants, please provide the following documents and information by Monday, June 22, 2015:

1) If the likely effects of EPA's action on ESA-listed species or habitat will be "positive," would those "positive" effects be best described as "wholly beneficial," "insignificant," "discountable," or "no effect?" Please explain your answer in detail.

2) If the likely effects of EPA's action on ESA-listed species or habitat will be "remote" or "very small," would those effects be best described as "wholly beneficial," "insignificant," "discountable," or "no effect?" Please explain your answer in detail.

3) All records, documents, analyses, memoranda, and communications concerning the effects of the proposed rule for existing power plants on ESA-listed species or habitat, including EPA's consideration of its ESA obligations with regard to this rule.

4) All records, documents, analyses, memoranda, and communications concerning the effects of the proposed rule for new power plants on ESA-listed species or habitat, including EPA's consideration of its ESA obligations with regard to this rule.

5) All documents reflecting communications involving the Department of the Interior, including the FWS, concerning the applicability of the ESA and/or section 7 consultation

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[29] Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units, *supra* note 2. *Compare* 79 Fed. Reg. 34,830, 34,832 (including "Endangered Species Act" in list of "Impacts of the Proposed Action"), *with* 79 Fed. Reg. 1430, 1432 (omitting "Endangered Species Act" in list of "Impacts of the Proposed Action").

[30] This is not the first inconsistent position EPA has taken on the consultation requirements for power plant rules. Just last year, EPA concluded consultation with the Services on its Cooling Water Intake Structure ("CWIS") rule, another wide-ranging regulation affecting power plants. The resulting programmatic Biological Opinion ("BiOp") issued by FWS and NMFS specifically contemplated effects on endangered species, including the manatee. It also analyzed the impacts of thermal discharges. The very existence of this BiOp confirms that changes to power plant operations have effects on ESA-protected species that merit consultation under section 7 – a fact that EPA now seems to deny.

for the proposed rules for new or existing power plants.

6) All documents reflecting communications involving the Council for Environmental Quality concerning the applicability of the ESA and/or section 7 consultation for the proposed rules for new or existing power plants.

Instructions and definitions for responding to this request are enclosed. Please have your staff contact Rob Gordon or Jessica Conrad with the House Committee on Natural Resources at (202) 225-7107, or Byron Brown with the Senate Committee on Environment and Public Works at (202) 224-6167 with any questions.

Sincerely,

Rob Bishop
Chairman
House Committee on Natural Resources

James M. Inhofe
Chairman
Senate Committee on Environment and Public Works

cc: Raúl Grijalva, Ranking Member, Committee on Natural Resources

Congress of the United States
Washington, DC 20515

September 16, 2016

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator McCarthy:

We write seeking clarification on the Environmental Protection Agency's (EPA) enforcement of certain regulatory provisions of the Renewable Fuel Standard (RFS). We understand that the EPA is devoting substantial resources to an attempt to assign unprecedented levels of penalties under a regulatory provision that no longer exists and is based on an inconsistent interpretation that is counter to the regulation's plain language.

The provision in question is the former 40 C.F.R. § 80.1429(f). That provision, which the EPA deleted in September 2014, *see* 79 Fed. Reg. 42078, 42115 (July 18, 2014) (deleting Paragraph 80.1429(f) effective September 16, 2014), provided: "Any party that uses a renewable fuel in any application that is not transportation fuel, heating oil, or jet fuel, or designates a renewable fuel for use as something other than transportation fuel, heating oil, or jet fuel, must retire any RINs received with that renewable fuel and report the retired RINs in the applicable reports under § 80.1451."

It appears the EPA now interprets that provision as meaning that any party that used or designated a renewable fuel *as a feedstock* for use in producing renewable fuels had to retire any RINs received with the feedstock. However, this interpretation is inconsistent with a separate provision of the regulations, also deleted in September 2014, that provided "Parties who produce renewable fuel made from a feedstock which itself was a renewable fuel received with RINs, shall assign the original RINs to the new renewable fuel." See 40 C.F.R. 80.1426(c)(6)(ii)(A) (2010-2014) (deleted effective September 16, 2014).

Based on the regulatory text in effect from 2010 to 2014, the RFS regulations prohibited a party from doing what the EPA now insists they had to do—that is, retire any RINs that the party received with renewable fuel used as a feedstock. If this is in fact EPA's interpretation of these regulations, such enforcement actions would appear to be directly in contradiction with the plain language of the regulations in effect at the time.

Given the concerns raised in this letter alongside the agency's attempt to assign unprecedented levels of penalties against individual companies that have spared no expense

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working with the agency to resolve this issue and fully comply with the RFS regulations in general, we request answers to the following questions:

1. Does EPA interpret 40 CFR § 80.1429(f) as requiring any party that used or designated a renewable fuel as a feedstock for use in producing renewable fuels to retire RINs received with the feedstock? Please explain.

    a. If yes, please explain how EPA's interpretation of 40 CFR § 80.1429(f) is consistent with the plain language of the former paragraph 80.1426(c)(6)(ii)(A)?

2. During the time 40 CFR § 80.1429(f) was in effect, did its requirements apply to interim uses of fuel or final uses of fuel?

3. Why is EPA is devoting resources to investigating and enforcing a regulatory provision - 40 C.F.R. § 80.1429(f) - that it deleted over two years ago?

4. Under the current regulations, has EPA provided a pathway for the generation of RINs for a fuel produced using another renewable fuel as a feedstock?

We appreciate your prompt attention to this request. Please respond to the above inquiries on or before September 30, 2016. Should you have any questions, please contact Mandy Gunasekara of the Environment and Public Works Majority Committee staff at (202) 224-6176.

Sincerely,

James M. Inhofe
United States Senator

Markwayne Mullin
Member of Congress

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To: Hindin, David[Hindin.David@epa.gov]
Cc: Starfield, Lawrence[Starfield.Lawrence@epa.gov]; Patrick Traylor (traylor.patrick@epa.gov)[traylor.patrick@epa.gov]
From: Bodine, Susan
Sent: Mon 10/2/2017 7:24:37 PM
Subject: Smart Sectors
2017-20310.pdf

Ex. 5 - Deliberative Process

UNITED STATES DEPARTMENT OF ENERGY

SOUTHWESTERN POWER ADMINISTRATION

RATE SCHEDULE EE–13[1] **

WHOLESALE RATES FOR EXCESS ENERGY

Effective:

During the period October 1, 2013, through September 30, 2019**, in accordance with Federal Energy Regulatory Commission order issued January 9, 2014, Docket No. EF14–1–000.

Available:

In the marketing area of Southwestern Power Administration (Southwestern), described generally as the States of Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas.

Applicable:

To electric utilities which, by contract, may purchase Excess Energy from Southwestern.

Character and Conditions of Service:

Three-phase,alternating current, delivered at approximately 60 Hertz, at the nominal voltage(s) and at the point(s) of delivery specified by contract.

1.

Wholesale Rates, Terms, and Conditions for Excess Energy

Excess Energy will be furnished at such times and in such amounts as Southwestern determines to be available.

1.1. Transmission and Related Ancillary Services

Transmission service for the delivery of Excess Energy shall be the sole responsibility of such customer purchasing Excess Energy.

1.2. Excess Energy Charge

$0.0094 per kilowatthour of Excess Energy delivered.

[FR Doc. 2017–20034 Filed 9–25–17; 8:45 am]

BILLING CODE 6450–01–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–9968–18–OP]

EPA Smart Sectors Program Launch

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is announcing the Smart Sectors program in the Office of Policy. Based on the successful EPA Sector Strategies program, EPA's Smart Sectors program will re-examinehow EPA engages with industry in order to reduce unnecessary regulatory burden, create certainty and predictability, and improve the ability of both EPA and industry to conduct long-term regulatory planning while also protecting the environment and public health.

FOR FURTHER INFORMATION CONTACT: Daisy Letendre, Senior Advisor for Policy and Strategic Communications, Office of Policy, Office of Administrator, Environmental Protection Agency, Mail Code: 1104A, 1200 Pennsylvania Ave. NW., Washington, DC 200460; telephone number: (202) 564–0410; email address: *sectors@epa.gov*.

SUPPLEMENTARY INFORMATION:

General Information

EPA has initially identified the following sectors to work with: Aerospace; agriculture; automotive; cement and concrete; chemical manufacturing; construction; electronics and technology; iron and steel; oil and gas; ports and shipping; and utilities and power generation. Sectors were selected based on each sector's potential to improve the environment and public health. EPA welcomes participation from other stakeholders.

The Smart Sectors program will designate staff-levelpoints of contact who are highly knowledgeable about specific industries. These individuals will act as liaisons among industry trade associations and companies, EPA program and regional offices, state and local governments, and other stakeholder groups. The sector liaisons will focus their attention primarily on three main areas: Building relationships and improving customer service to sectors; developing additional expertise in each industry's operations and environmental performance; and informing the planning of future policies, regulations, and Agency processes.

EPA anticipates that participating industries will benefit from coordinated, cooperative, and constructive problem-solving with government. The Agency will invite participating industries to engage in active dialogue and offer their own innovative ideas to reduce environmental impacts. Because industry-wideenvironmental performance improvement is the goal, EPA will work with trade associations and others to find creative ways to document environmental progress and burden reductions.

Dated: September 14, 2017.

Samantha K. Dravis,

Associate Administrator for Policy.

[FR Doc. 2017–20310 Filed 9–25–17; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–9968–08–OLEM]

Access to Confidential Business Information by Eastern Research Group (ERG)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of access to data and request for comments.

SUMMARY: EPA will authorize its contractor, Eastern Research Group (ERG) to access Confidential Business Information (CBI) which has been submitted to EPA under the authority of all sections of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended. EPA has issued regulations that outline business confidentiality provisions for the Agency and require all EPA Offices that receive information designated by the submitter as CBI to abide by these provisions.

DATES: Access to confidential data submitted to EPA will occur no sooner than October 6, 2017.

FOR FURTHER INFORMATION CONTACT: LaShan Haynes, Document Control Officer, Office of Resource Conservation and Recovery, (5305P), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, 703–605–0516.

SUPPLEMENTARY INFORMATION:

1. Access to Confidential Business Information

Under EPA Contract EP–W–10–055, entitled ''Advancing SMM: Waste Facts and Figures and Related Tasks,'' the Eastern Research Group (ERG) will assist the Office of Resource Conservation and Recovery, Resource Conservation and Sustainability Division in collecting and analyzing municipal solid waste (MSW) information. The contract addresses MSW and other waste such as construction and demolition debris, however, the confidential business information (CBI) only relates to the MSW information collected and analyzed in the contract. The contract period is from August 2017–February 28, 2018. Some of the data collected from industry are claimed by industry to contain trade secrets or CBI. In

[1] Supersedes Rate Schedule EE–11.

**Extended through September 30, 2019 by approval of Rate Order No. SWPA–72 by the Deputy Secretary of Energy.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 2 2 2017

OFFICE OF THE
ADMINISTRATOR

The Honorable Jeff Merkley
United States Senate
Washington, DC 20510

Dear Senator Merkley,

Thank you for your letter dated September 13, 2017. On September 5, 2017, I joined the Environmental Protection Agency (EPA) as a Senior Advisor to the Administrator. Before accepting this position, I discussed my plans and my reasons with the staff of Senator Carper, Ranking Member, Environment and Public Works Committee. I decided to leave my position with the committee and join the EPA because I thought I could help both the career staff at the EPA and Administrator Pruitt.

The EPA is a large agency with many statutory responsibilities. Like many large organizations, the management system is structured so that a handful of people are not expected to manage thousands. At EPA headquarters, the staff who carry out the day to day work report to their branch chiefs or division directors, who report to their office directors. Those office directors report to the assistant administrator of the program office. The assistant administrator reports to the administrator, the deputy administrator and the chief of staff. I know from my experience as an assistant administrator of what is now the Office of Land and Emergency Management that the role of the assistant administrator is critical. That person provides the link between the career staff in each program office and the administrator's senior staff. That coordinating function ensures that the recommendations of career staff are heard and activities are not delayed for want of senior management attention. Simply put, the EPA needs Senate-confirmed assistant administrators to facilitate the work of the Agency in protecting human health and the environment.

I am very sensitive to the prerogatives of the Senate and the requirements of the Federal Vacancies Reform Act. My position description is attached. The position is a Non-Career Senior Executive Service Limited Term position. It is located in the Office of the Administrator and my supervisor is Administrator Pruitt. It is not a managerial position so I supervise no one. I have no delegated authority. I am not carrying out the functions or authorities of an assistant administrator.

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As you note, I have signed an ethics agreement, which you have. I am bound by that agreement. I also am bound by the ethics pledge, a copy of which is attached. I have no waivers or recusals. My EPA email address is bodine.susan@epa.gov. That is the only EPA email address I have. I do not expect to use any aliases or pseudonyms but if for some reason that takes place, I will provide that to you.

I have been and will continue to communicate regarding work-related matters using my EPA email.

My schedule is a public record subject to the Freedom of Information Act.

With respect to your questions regarding enforcement of the New Source Performance Standard methane oil and gas rule, I was not involved in the formulation of the statement you reference in your letter. I have not authored or reviewed any guidance on enforcement of that rule. The statement you refer to is not a "No Action Assurance;" the EPA's no action assurance policy has not changed.

The statement you refer to merely says that the EPA will review matters related to the methane oil and gas rule on a "case by case" basis. I would observe that that is no different from how the EPA reviews any potential enforcement matters. The EPA cannot take all potential environmental cases and uses prosecutorial judgment to decide where to expend its resources. That judgment is informed by many things, including the degree of risk and the nature of the conduct. In my current position, I am not the person who makes those decisions.

Regarding state enforcement of the methane rule, it is my understanding that the following states have authority (although this list is subject to change): Maryland, Virginia (partial), West Virginia, Pennsylvania (including Philadelphia Air Management Services and Allegheny County Health Department), Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Florida, Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Texas, New Mexico (excluding Albuquerque), Arkansas, and Wyoming.

The EPA reviews potential enforcement actions when a state requests assistance. Which actions are taken or what assistance is provided is a case by case determination in all cases, not just those relating to the methane oil and gas rule.

States report their clean air enforcement actions, both informal and formal, to the EPA using the Integrated Compliance Information System (ICIS). This information is then made available to the public via the Enforcement and Compliance History Online (ECHO) database.

As you note, in my responses to questions for the record, I pledged to seek a briefing on various EPA matters following confirmation. I am not yet confirmed and in the 14 working days I have been at the EPA, I have not yet received the nine briefings discussed. EPA staff, including myself, have been very focused on responding to Hurricanes Harvey and Irma. To avoid taking

staff away from their work, I instead asked for information on these matters and have had the opportunity to read the relevant EPA guidance so I can now respond to your questions.

1. EJ 2020 Action Agenda

   Before I arrived at the EPA, Administrator Pruitt decided to elevate the Office of Environmental Justice to the Office of Policy in the Office of the Administrator, to complement the work already being done by the Office of Community Revitalization within the Office of Policy. Plans for that reorganization are underway and are expected to be complete by October 2, 2017. Accordingly, if confirmed, I will not be the manager of that office. However, I have read chapter 4 of the EJ 2020 Action Agenda, on compliance and enforcement, which is an OECA function. I agree with the three strategies outlined in that chapter and believe that they align with the commitment in the President's FY 2018 budget request to prioritize inspections and enforcement activities based on the degree of health and environmental risk. Environmental justice communities often are those that face the greatest risks.

2. EJ Strategic Plan

   Please see my response above, regarding the enforcement and compliance aspects of this document.

3. Enforcement of Title VI

   As I noted in my responses to questions for the record from my nomination hearing, the EPA office with responsibility for enforcing Title VI is the Office of General Counsel. I have now reviewed the September 2016 report entitled: "Environmental Justice: Examining the Environmental Protection Agency's Compliance and Enforcement of Title VI and Executive Order 12,898." That report alleges that EPA has failed to meet the regulatory guidelines for processing and handling the Title VI complaints it receives. I have insufficient information to agree or disagree with that allegation. In December 2016, the prior administration sought to address this issue by moving the Title VI enforcement function to the Office of General Counsel. It is my hope that this change will successfully address the concerns identified.

4. NPM Guidance

   It is my understanding that the draft OECA National Program Manager's guidance has been revised to respond to public comments, including a revision to acknowledge the opportunity for states to gain approval of alternative compliance monitoring strategies. If confirmed, I will work with the Regions on streamlining

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the approval process, while maintaining its integrity. If confirmed, I will work with states to ensure that alternative compliance monitoring strategies are tracked and displayed in the same way as traditional plans.

5. Technology-based tools

   In 2015, OECA issued a regulation requiring electronic reporting by NPDES permit holders. Implementation began in December 2016 and will be complete by December 2020. Electronic reporting saves money and increases efficiency. If confirmed, I will look for similar opportunities to expand the use of technology-based tools.

6. Enforcement authority of Regional Administrators

   Almost all of EPA's enforcement authorities are delegated to Regional Administrators, who in turn delegate that authority to division directors and branch chiefs within the Region, as appropriate. However, to ensure national consistency, many actions require either concurrence, consultation, or notice to OECA headquarters, generally to office directors, division directors, and branch chiefs at OECA headquarters.

7. Sessions memo

   The Sessions memo does not prohibit payments to states, tribes, and local governments. Of course, such payments must comply with other existing EPA policies, such as the 2012 Mitigation Policy.

   The Sessions memo did not prohibit any provisions of the VW settlement. I am not aware of the specific matters to which Attorney General Sessions referred when he announced his mitigation memo. The part of the Harley Davidson settlement that required payment of $3 million to the American Lung Association of the Northeast to replace wood stoves is an example of an action which does not comply with the Sessions memo.

   OECA's Supplemental Environmental Projects Policy already meets the requirements of the Sessions memo. I do not have any plans to revise that policy, if confirmed.

8. Drinking water analytical test methods

   Under the Safe Drinking Water Act (SDWA), compliance monitoring for regulated contaminants by all covered water systems must be performed by state-certified laboratories using EPA-approved analytical methods. Additionally,

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monitoring for contaminants of emerging concern, under EPA's Unregulated Contaminant Monitoring Rule, must be performed by EPA-approved laboratories using EPA-approved methods. The EPA publishes new/alternative methods approximately annually to provide greater flexibility and incorporate new technology. While most states have primary enforcement responsibility for the public water system program and would take the lead on ensuring owners and operators comply with SDWA's applicable requirements, including approved analytical methods, the EPA has independent enforcement authority and works with the states to achieve this goal. Under a December 2009 policy, the EPA focuses its enforcement attention on systems with the most serious or repeated violations. If confirmed, I would also like to explore making compliance with the Safe Drinking Water Act a National Enforcement Initiative.

9. Use of pollution control equipment during ozone season

   I am told that where a plant is not subject to a unit specific emission rate, a plant may lawfully reduce the use of pollution control equipment and may lawfully purchase allowances in lieu of running pollution control equipment.

Sincerely,

Susan Parker Bodine

Enclosures

cc: Senator Tom Carper
Senator John Barrasso

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SENIOR ADVISOR TO THE ADMINISTRATOR

ES-0301-00

This position is located in the Immediate Office of the Administrator (AO). The incumbent serves as a Senior Advisor to the Administrator by performing a wide range of sensitive, complex assignments which are sensitive enough to require the attention of the Administrator.

1. Serves as Senior Advisor to the Administrator. Provides informal advice concerning internal and external Agency policy efforts, receives internal policy briefings, and becomes familiar with relevant broad Agency policy issues.

2. Renders informal advice to identify and analyze emerging legislation and regulatory issues of interest to the Administrator. Maintains a continuing awareness of regulations and the policies and programs supported by the Administration and the Congress.

3. Keeps abreast of new developments within and outside the Federal sector pertaining to assigned areas of expertise and provides informal advice to the Administrator on strategies to accommodate such developments.

SUPERVISORY CONTROLS

Receives broad general direction and policy guidance from the Administrator.

ETHICS PLEDGE

As a condition, and in consideration, of my employment in the United States Government in an appointee position invested with the public trust, I commit myself to the following obligations, which I understand are binding on me and are enforceable under law:

1. I will not, within 5 years after the termination of my employment as an appointee in any executive agency in which I am appointed to serve, engage in lobbying activities with respect to that agency.

2. If, upon my departure from the Government, I am covered by the post-employment restrictions on communicating with employees of my former executive agency set forth in section 207(c) of title 18, United States Code, I agree that I will abide by those restrictions.

3. In addition to abiding by the limitations of paragraphs 1 and 2, I also agree, upon leaving Government service, not to engage in lobbying activities with respect to any covered executive branch official or non-career Senior Executive Service appointee for the remainder of the Administration.

4. I will not, at any time after the termination of my employment in the United States Government, engage in any activity on behalf of any foreign government or foreign political party which, were it undertaken on January 20, 2017, would require me to register under the Foreign Agents Registration Act of 1938, as amended.

5. I will not accept gifts from registered lobbyists or lobbying organizations for the duration of my service as an appointee.

6. I will not for a period of 2 years from the date of my appointment participate in any particular matter involving specific parties that is directly and substantially related to my former employer or former clients, including regulations and contracts.

7. If I was a registered lobbyist within the 2 years before the date of my appointment, in addition to abiding by the limitations of paragraph 6, I will not for a period of 2 years after the date of my appointment participate in any particular matter on which I lobbied within the 2 years before the date of my appointment or participate in the specific issue area in which that particular matter falls.

8. I agree that any hiring or other employment decisions I make will be based on the candidate's qualifications, competence, and experience.

9. I acknowledge that the Executive Order entitled "Ethics Commitments by Executive Branch Appointees," issued by the President on January 28, 2017, which I have read before signing this document, defines certain terms applicable to the foregoing obligations and sets forth the methods for enforcing them. I expressly accept the provisions of that Executive Order as a part of this agreement and as binding on me. I understand that the obligations of this pledge are in addition to any statutory or other legal restrictions applicable to me by virtue of Government service.

Susan P Bodine
Signature

9/21, 2017
Date

SUSAN P. BODINE
Print or type your full name (last, first, middle)

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 2 2 2017

OFFICE OF THE
ADMINISTRATOR

The Honorable Sheldon Whitehouse
United States Senate
Washington, DC 20510

Dear Senator Whitehouse,

Thank you for your letter dated September 13, 2017. On September 5, 2017, I joined the Environmental Protection Agency (EPA) as a Senior Advisor to the Administrator. Before accepting this position, I discussed my plans and my reasons with the staff of Senator Carper, Ranking Member, Environment and Public Works Committee. I decided to leave my position with the committee and join the EPA because I thought I could help both the career staff at the EPA and Administrator Pruitt.

The EPA is a large agency with many statutory responsibilities. Like many large organizations, the management system is structured so that a handful of people are not expected to manage thousands. At EPA headquarters, the staff who carry out the day to day work report to their branch chiefs or division directors, who report to their office directors. Those office directors report to the assistant administrator of the program office. The assistant administrator reports to the administrator, the deputy administrator and the chief of staff. I know from my experience as an assistant administrator of what is now the Office of Land and Emergency Management that the role of the assistant administrator is critical. That person provides the link between the career staff in each program office and the administrator's senior staff. That coordinating function ensures that the recommendations of career staff are heard and activities are not delayed for want of senior management attention. Simply put, the EPA needs Senate-confirmed assistant administrators to facilitate the work of the Agency in protecting human health and the environment.

I am very sensitive to the prerogatives of the Senate and the requirements of the Federal Vacancies Reform Act. My position description is attached. The position is a Non-Career Senior Executive Service Limited Term position. It is located in the Office of the Administrator and my supervisor is Administrator Pruitt. It is not a managerial position so I supervise no one. I have no delegated authority. I am not carrying out the functions or authorities of an assistant administrator.

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As you note, I have signed an ethics agreement, which you have. I am bound by that agreement. I also am bound by the ethics pledge, a copy of which is attached. I have no waivers or recusals. My EPA email address is bodine.susan@epa.gov. That is the only EPA email address I have. I do not expect to use any aliases or pseudonyms but if for some reason that takes place, I will provide that to you.

I have been and will continue to communicate regarding work-related matters using my EPA email.

My schedule is a public record subject to the Freedom of Information Act.

With respect to your questions regarding enforcement of the New Source Performance Standard methane oil and gas rule, I was not involved in the formulation of the statement you reference in your letter. I have not authored or reviewed any guidance on enforcement of that rule. The statement you refer to is not a "No Action Assurance;" the EPA's no action assurance policy has not changed.

The statement you refer to merely says that the EPA will review matters related to the methane oil and gas rule on a "case by case" basis. I would observe that that is no different from how the EPA reviews any potential enforcement matters. The EPA cannot take all potential environmental cases and uses prosecutorial judgment to decide where to expend its resources. That judgment is informed by many things, including the degree of risk and the nature of the conduct. In my current position, I am not the person who makes those decisions.

Regarding state enforcement of the methane rule, it is my understanding that the following states have authority (although this list is subject to change): Maryland, Virginia (partial), West Virginia, Pennsylvania (including Philadelphia Air Management Services and Allegheny County Health Department), Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Florida, Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Texas, New Mexico (excluding Albuquerque), Arkansas, and Wyoming.

The EPA reviews potential enforcement actions when a state requests assistance. Which actions are taken or what assistance is provided is a case by case determination in all cases, not just those relating to the methane oil and gas rule.

States report their clean air enforcement actions, both informal and formal, to the EPA using the Integrated Compliance Information System (ICIS). This information is then made available to the public via the Enforcement and Compliance History Online (ECHO) database.

As you note, in my responses to questions for the record, I pledged to seek a briefing on various EPA matters following confirmation. I am not yet confirmed and in the 14 working days I have been at the EPA, I have not yet received the nine briefings discussed. EPA staff, including myself, have been very focused on responding to Hurricanes Harvey and Irma. To avoid taking

staff away from their work, I instead asked for information on these matters and have had the opportunity to read the relevant EPA guidance so I can now respond to your questions.

1. EJ 2020 Action Agenda

   Before I arrived at the EPA, Administrator Pruitt decided to elevate the Office of Environmental Justice to the Office of Policy in the Office of the Administrator, to complement the work already being done by the Office of Community Revitalization within the Office of Policy. Plans for that reorganization are underway and are expected to be complete by October 2, 2017. Accordingly, if confirmed, I will not be the manager of that office. However, I have read chapter 4 of the EJ 2020 Action Agenda, on compliance and enforcement, which is an OECA function. I agree with the three strategies outlined in that chapter and believe that they align with the commitment in the President's FY 2018 budget request to prioritize inspections and enforcement activities based on the degree of health and environmental risk. Environmental justice communities often are those that face the greatest risks.

2. EJ Strategic Plan

   Please see my response above, regarding the enforcement and compliance aspects of this document.

3. Enforcement of Title VI

   As I noted in my responses to questions for the record from my nomination hearing, the EPA office with responsibility for enforcing Title VI is the Office of General Counsel. I have now reviewed the September 2016 report entitled: "Environmental Justice: Examining the Environmental Protection Agency's Compliance and Enforcement of Title VI and Executive Order 12,898." That report alleges that EPA has failed to meet the regulatory guidelines for processing and handling the Title VI complaints it receives. I have insufficient information to agree or disagree with that allegation. In December 2016, the prior administration sought to address this issue by moving the Title VI enforcement function to the Office of General Counsel. It is my hope that this change will successfully address the concerns identified.

4. NPM Guidance

   It is my understanding that the draft OECA National Program Manager's guidance has been revised to respond to public comments, including a revision to acknowledge the opportunity for states to gain approval of alternative compliance monitoring strategies. If confirmed, I will work with the Regions on streamlining

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the approval process, while maintaining its integrity. If confirmed, I will work with states to ensure that alternative compliance monitoring strategies are tracked and displayed in the same way as traditional plans.

5. Technology-based tools

   In 2015, OECA issued a regulation requiring electronic reporting by NPDES permit holders. Implementation began in December 2016 and will be complete by December 2020. Electronic reporting saves money and increases efficiency. If confirmed, I will look for similar opportunities to expand the use of technology-based tools.

6. Enforcement authority of Regional Administrators

   Almost all of EPA's enforcement authorities are delegated to Regional Administrators, who in turn delegate that authority to division directors and branch chiefs within the Region, as appropriate. However, to ensure national consistency, many actions require either concurrence, consultation, or notice to OECA headquarters, generally to office directors, division directors, and branch chiefs at OECA headquarters.

7. Sessions memo

   The Sessions memo does not prohibit payments to states, tribes, and local governments. Of course, such payments must comply with other existing EPA policies, such as the 2012 Mitigation Policy.

   The Sessions memo did not prohibit any provisions of the VW settlement. I am not aware of the specific matters to which Attorney General Sessions referred when he announced his mitigation memo. The part of the Harley Davidson settlement that required payment of $3 million to the American Lung Association of the Northeast to replace wood stoves is an example of an action which does not comply with the Sessions memo.

   OECA's Supplemental Environmental Projects Policy already meets the requirements of the Sessions memo. I do not have any plans to revise that policy, if confirmed.

8. Drinking water analytical test methods

   Under the Safe Drinking Water Act (SDWA), compliance monitoring for regulated contaminants by all covered water systems must be performed by state-certified laboratories using EPA-approved analytical methods. Additionally,

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monitoring for contaminants of emerging concern, under EPA's Unregulated Contaminant Monitoring Rule, must be performed by EPA-approved laboratories using EPA-approved methods. The EPA publishes new/alternative methods approximately annually to provide greater flexibility and incorporate new technology. While most states have primary enforcement responsibility for the public water system program and would take the lead on ensuring owners and operators comply with SDWA's applicable requirements, including approved analytical methods, the EPA has independent enforcement authority and works with the states to achieve this goal. Under a December 2009 policy, the EPA focuses its enforcement attention on systems with the most serious or repeated violations. If confirmed, I would also like to explore making compliance with the Safe Drinking Water Act a National Enforcement Initiative.

9. Use of pollution control equipment during ozone season

   I am told that where a plant is not subject to a unit specific emission rate, a plant may lawfully reduce the use of pollution control equipment and may lawfully purchase allowances in lieu of running pollution control equipment.

Sincerely,

S. Parker Bodine

Susan Parker Bodine

Enclosures

cc: Senator Tom Carper
Senator John Barrasso

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Cc: Traylor, Patrick[traylor.patrick@epa.gov]; Bowman, Liz[Bowman.Liz@epa.gov]
To: Jackson, Ryan[jackson.ryan@epa.gov]
From: Bodine, Susan
Sent: Wed 9/27/2017 12:51:46 AM
Subject: Fwd: FwdNAA for Puerto Rico, NAA for Virgin Islands
NAA for Mobile Power Generators in Puerto Rico 09.22.2017 final.docx
ATT00001.htm

FYI

Sent from my iPhone

Begin forwarded message:

From: "Brooks, Phillip" <Brooks.Phillip@epa.gov>
Date: September 26, 2017 at 8:29:06 PM EDT
To: "Starfield, Lawrence" <Starfield.Lawrence@epa.gov>, "Traylor, Patrick" <traylor.patrick@epa.gov>, "Kelley, Rosemarie" <Kelley.Rosemarie@epa.gov>, "Fogarty, Johnpc" <Fogarty.Johnpc@epa.gov>, "Bodine, Susan" <bodine.susan@epa.gov>, "Chapman, Apple" <Chapman.Apple@epa.gov>, "Schaaf, Eric" <Schaaf.Eric@epa.gov>, "Mugdan, Walter" <Mugdan.Walter@epa.gov>, "Villatora, Liliana" <Villatora.Liliana@epa.gov>
Subject: FwdNAA for Puerto Rico, NAA for Virgin Islands

Ex. 5 - Deliberative Process

details, they are contained in the email below.

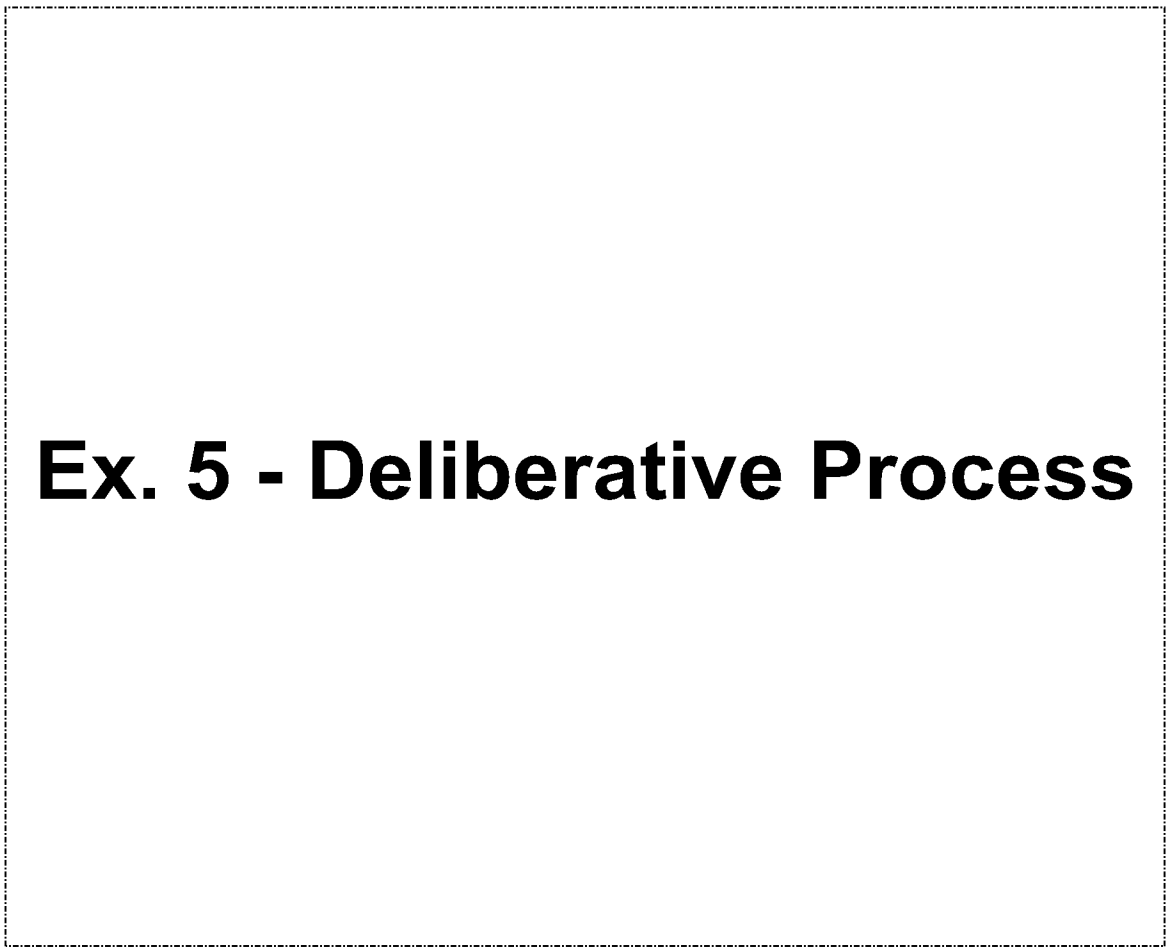
Sent from my iPhone

Begin forwarded message:

From: "Belser, Evan" <Belser.Evan@epa.gov>
Date: September 26, 2017 at 6:31:48 PM EDT
To: "Jorquera, Mario" <Jorquera.Mario@epa.gov>, "Jackson, Cleophas" <jackson.cleophas@epa.gov>, "Stout, Alan" <stout.alan@epa.gov>, "Alexander, David" <Alexander.David@epa.gov>
Cc: "Brooks, Phillip" <Brooks.Phillip@epa.gov>, "Chapman, Apple" <Chapman.Apple@epa.gov>, "Werner, Jacqueline" <Werner.Jacqueline@epa.gov>, "Fogarty, Johnpc" <Fogarty.Johnpc@epa.gov>, "Shiffman, Cari" <Shiffman.Cari@epa.gov>
Subject: NAA for Puerto Rico, NAA for Virgin Islands

Hello everyone,

Phill, John and I just spoke, an Ex. 5 - Deliberative Process :



Cc: Bowman, Liz[Bowman.Liz@epa.gov]; Traylor, Patrick[traylor.patrick@epa.gov]
To: Jackson, Ryan[jackson.ryan@epa.gov]
From: Bodine, Susan
Sent: Fri 10/6/2017 12:13:12 AM
Subject: Fwd: HQ EOC Spot Report: Region 8, Damage to Crow Agency Water Treatment Facility, Crow Agency, MT

Background

Sent from my iPhone

Begin forwarded message:

From: "Eoc, Epahq" <Eoc.Epahq@epa.gov>
Date: October 5, 2017 at 7:19:57 PM EDT
To: "Eoc, Epahq" <Eoc.Epahq@epa.gov>
Subject: HQ EOC Spot Report: Region 8, Damage to Crow Agency Water Treatment Facility, Crow Agency, MT

This report is being sent as a bcc to prevent accidental reply-all messages

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HQ EOC Spot Report: Region 8, Damage to Crow Agency Water Treatment Facility, Crow Agency, MT

U.S. Environmental Protection Agency

Report as of October 5, 2017 at 19:15 ET

Overview: On October 4, vandals broke into the Crow Agency water treatment facility (serving approximately 1,300 persons per day year-round) and damaged it with a shotgun in Crow Agency, MT. There have been varying accounts of damage reported by the Bureau of Indian Affairs (BIA) Police, Crow Agency and the FBI. All sources agree that the chlorine tank was damaged and was leaking from the valve set. A 40-pound bag of "filter aid" – a polymer coagulant – was thrown into the clear well. There is concern that this may have released polyacrylamide into the clear well and further into the system before the plant was shut down. The facility was manually shut off yesterday at approximately 08:00 MT. The water system provided and distributed a door-to-door "Do Not Use " advisory. The notice will also be posted in conspicuous locations and announced on the local radio station. In addition, Region 8 is issuing an Emergency Administrative Order to ensure proper system evaluation and startup. The residents are being provided bottled water as a precaution.

State, Local and other Federal Agency Actions: Region 8 is supporting the Crow Agency tribe's request for assistance in getting the plant back on-line. In addition to working with multiple internal entities (i.e., EPA Montana Office, EPA Drinking Water Unit, EPA Drinking Water Enforcement Unit, EPA Criminal Investigation Division, OECA, and the EPA Tribal Assistance Program), Region 8 is also coordinating with the Tribe, the System operator, the FBI, the BIA Police, and numerous other governmental and legal authorities to assist in the investigation, damage assessment, and response.

EPA Actions: A Region 8 OSC was deployed and is working with the treatment chemical supplier and Region 8 drinking water staff to assess and understand any potential threat posed by contaminated water that may have been released into the distribution system from the clear well. Additionally, the OSC is assisting the plant operator with damage assessment of the plant, developing steps required to bring it back on-line, and assessing residual chlorine monitoring in the distribution system and taking steps to start to clean/decontaminate the plant. Region 8 CID agents conducted an investigation of the facility after the OSC could confirm that there were no elevated vapors in the facility.

Media Interest: Medium

http://billingsgazette.com/news/state-and-regional/montana/tribe-delivers-bottled-water-to-crow-agency-after-treatment-facility/article_1833b0e3-f89e-57f0-901b-fa0d0172d076.html

http://mtpr.org/post/vandals-destroy-crow-agency-water-treatment-plant

The HQ EOC will continue to monitor and provide updates as needed

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Steve Ridenour, Senior Watch Officer

U.S. Environmental Protection Agency

Headquarters Emergency Operations Center

1200 Pennsylvania Ave

Washington, DC 20004

202-564-3850 (24hrs)

eoc.epahq@epa.gov

To: Ringel, Aaron[ringel.aaron@epa.gov]; Lyons, Troy[lyons.troy@epa.gov]; Bowman, Liz[Bowman.Liz@epa.gov]
From: Bodine, Susan
Sent: Wed 12/6/2017 5:17:16 PM
Subject: Enforcement numbers question.docx
Enforcement numbers question.docx
Supplemental Enforcement Talking Points (December 5, 2017).docx

The additional material we used this morning with the Administrator.

To: Patrick Traylor (traylor.patrick@epa.gov)[traylor.patrick@epa.gov]
From: Bodine, Susan
Sent: Mon 11/27/2017 7:00:13 PM
Subject: DRAFT Keystone Pipeline Spill Briefing (November 27 2017).docx
Keystone Pipeline Spill Briefing (November 27 2017).docx

To: Bennett, Tate[Bennett.Tate@epa.gov]; Sands, Jeffrey[sands.jeffrey@epa.gov]
From: Bodine, Susan
Sent: Tue 11/7/2017 8:00:05 PM
Subject: continuous reports
part_2_instructions_and_procedures_for_continuous_release_reporting.pdf

From EPA guidance:

"Identify your report as a report of a continuous release under CERCLA Section 103(f)(2). It is very important for tracking purposes that the person at the NRC, SERC, and LEPC to whom you speak understands that you are giving the initial telephone notification of a continuous release (rather than an episodic report)."

"CONTINUOUS" is an incident type.

Below are examples of continuous reports by farms from NRC website. I note that they included addresses. (And the November ones are all from TX)

1195023	23	THIS IS AN INITIAL CONTINUOS RELEASE REPORT FOR AMMONIA FROM ANIMAL WASTE PRODUCED AT A FARM. THE ENVIRONMENTAL IMPACT IS ATMOSPHERE.	CONTIN
1195043	43	CALLER IS REPORTING AN INITIAL CONTINUOUS RELEASE FOR A RELEASE OF AMMONIA FROM POULTRY HOUSES.	C
1195019	19	CALLER IS REPORTING THE INITIAL RELEASE OF AMMONIA FROM THEIR FARMING FACILITY. THIS IS THE INITIAL REPORT OF THE RELEASE OF AMMONIA THAT MAY EXCEED REPORTING REQUIREMENTS.	C
1195010	10	CALLER IS REPORTING THE NOTIFICATION OF A CONTINUOS RELEASE OF AMMONIA.	C
1195028	28	CALLER REPORTED THE INITIAL RELEASE OF AMMONIA FROM THEIR FARM FACILITY.	C

Ex. 6 - Personal Privacy

1195014	04	CALLER REPORTED THE INITIAL REPORT OF THE RELEASE OF AMMONIA DUE TO ANIUMAL FARMING.	CONTI		
1195026	26	THIS IS AN INITIAL CONTINUOS RELEASE REPORT FOR AMMONIA FROM ANIMAL WASTE PRODUCED AT A FARM. THE ENVIRONMENTAL IMPACT IS ATMOSPHERE.	CONTINUOUS	OTHE	1
1195024	24	THIS IS AN INITIAL CONTINUOUS RELEASE REPORT FOR AMMONIA FROM ANIMAL WAST PRODUCED AT A FARM.	CONTI		
1195045	45	THIS IS AN INITIAL CONTINUOUS RELEASE REPORT FOR AMMONIA RELEASED FROM ANIMAL WASTE AT A FARM.	CONTI		
1195025	25	THIS IS AN INITIAL CONTINUOUS RELEASE REPORT FOR AMMONIA FROM ANIMAL WASTE PRODUCED AT A FARM.	CONTI		
1195013	13	THIS IS AN INITIAL CONTINUOS RELEASE REPORT FOR AMMONIA FROM ANIMAL WASTE PRODUCED AT A FARM. THE ENVIRONMENTAL IMPACT IS ATMOSPHERE.	FIXED	OTHE	1
1195069	69	THIS IS AN INITIAL CONTINUOS RELEASE REPORT FOR AMMONIA FROM ANIMAL WASTE PRODUCED AT A FARM. THE ENVIRONMENTAL IMPACT IS ATMOSPHERE.	FIXED	OTHE	1
1195003	03	THIS IS AN INITIAL CONTINUOS RELEASE REPORT FOR AMMONIA FROM ANIMAL WASTE PRODUCED AT A FARM. THE ENVIRONMENTAL IMPACT IS ATMOSPHERE.	CONTIN		
1195003	03	THIS IS AN INITIAL CONTINUOUS RELEASE REPORT FOR AMMONIA FROM ANIMAL WASTE PRODUCED AT A FARM. CURRENTLY CALLER HAS NO WAY TO MEASURE OR ESTIMATE THE EMISSION FROM THE FARM. HOWEVER, THE EMISSIONS MAY EXCEED THE LIMIT OF 100 LB OF AMMONIA PER DAY.	CONTI		
1195003	03	CALLER IS REPORTING A CONTINUOUS RELEASE OF	CONTINUO		

Ex. 6 - Personal Privacy

	AMMONIA FROM FOUR POULTRY HOUSES.			
1195006	CALLER IS REPORTING A RELEASE OF AMMONIA FROM FOUR POULTRY HOUSES. THIS IS AN INITIAL CONTINUOUS RELEASE REPORT.	CONTINU		
1195007	CALLER IS REPORTING A RELEASE OF AMMONIA FROM SIX POULTRY HOUSES. THIS IS AN INITIAL CONTINUOUS RELEASE REPORT.	CONTINU		
1195008	CALLER IS REPORTING AN INITIAL CONTINUOUS RELEASE FOR A RELEASE OF AMMONIA FROM FOUR POULTRY HOUSES.	CONTINU		
1195010	CALLER IS REPORTING AN INITIAL CONTINUOUS RELEASE OF AMMONIA FROM FOUR POULTRY HOUSES.	CONTINUOTH		
1195012	CALLER IS REPORTING THE INITIAL CONTINUOUS RELEASE REPORT OF AMMONIA PER CERCLA AND EPCRA DUE TO THE BREAKDOWN OF ANIMAL WASTE.	CONTINUOT		
1195015	CALLER IS REPORTING AN INITIAL CONTINUOUS RELEASE NOTIFICATION OF AMMONIA DUE TO THE BREAKDOWN OF ANIMIAL WASTE.	CONTINUOTH		
1195017	CALLER IS REPORTING AN INITIAL CONTINUOUS RELEASE NOTIFICATION OF AMMONIA DUE TO THE BREAKDOWN OF ANIMIAL WASTE PER CERCLA AND EPCRA.	CONTINUOTH		

Ex. 6 - Personal Privacy

PART 2: INSTRUCTIONS AND PROCEDURES FOR CONTINUOUS RELEASE REPORTING

2.0 Introduction

This part of the Guide includes detailed instructions and procedures for complying with the reporting requirements for continuous releases. These instructions are intended to assist you in supplying the information required by the implementing regulations "Reporting Continuous Releases of Hazardous Substances Final Rule" (40 CFR Parts 302.8 and 355.40). The instructions below cover both the standard reporting requirements and the reporting requirements for special circumstances. The standard reporting requirements include the initial telephone notification, the initial written report, and the one-time first anniversary follow-up report. Reporting requirements for special circumstances include reports of SSIs, as well as reports of any changes in the release that make the information submitted in the initial written or follow-up reports inaccurate or out-of-date.

Part 2 of the Guide is organized into six sections. Section 2.1 provides a general overview of how to report continuous releases. Sections 2.2 through 2.5 explain each type of required notification. Within each of these sections are detailed instructions on when and where to submit each required report, as well as instructions on what information to include in the report. Section 2.6 provides a summary of the information that must be provided by reviewing the key elements of the **Suggested Continuous Release Reporting Format** included in **Appendix B** of this Guide. You are strongly encouraged to use this suggested reporting format when completing your written initial and follow-up reports to ensure that you include all of the information required by the Rule.

This part of the Guide also provides other materials to assist you in completing your written reports including **Exhibit 2-1**, the checklist of the information required in the initial written and follow-up reports, which appears on page 19. This checklist is another method that can be used to verify that all required information has been collected and submitted.

2.1 General Overview of How to Report a Continuous Release

If you have established that your release is continuous and stable in quantity and rate, you may begin reporting under CERCLA Section 103(f)(2). As discussed in Part 1 of this Guide, the continuous release reporting regulation provides you with two options for reporting continuous releases of CERCLA hazardous substances. You may aggregate multiple concurrent releases of the same hazardous substance from contiguous or adjacent facilities and report them in a single notification, or you may consider each facility separately and submit reports on a per facility basis. Although you may elect either option for notification of continuous releases, whichever option you elect must also be used for reporting statistically significant increases (SSIs) in the release and reporting changes in information previously submitted.

To report a continuous release from your facility, you must comply with the standard reporting requirements under the Rule which require you to make an initial telephone notification, an initial written report, and a one-time, first anniversary follow-up report. In the written reports (i.e., the initial written report and the follow-up report), you must provide specific information that describes your continuous release. This information includes identifying the facility and providing certain ecological and population-density information on the surrounding area, as well as information on the source of the release. You must identify all sources of continuous release from your facility (e.g., smoke stacks, waste piles, valves) whenever those facility-wide releases equal or exceed an RQ. You must also provide substance-specific information on each hazardous substance released from each identified source (40 CFR 302.8(e)).

In addition to the standard reporting requirements of the initial telephone notification and the written reports, under certain circumstances you must make additional reports. You must report any

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SSIs in the release, as well as any changes in the release that make the information submitted in the initial written or follow-up reports inaccurate or out-of-date. The specific information required in each of these types of continuous release reports is outlined in the sections below. The instructions for reporting continuous releases contained in this part of the Guide are written for those who elect to report each facility separately and therefore they refer to "facilities" rather than "sites." The instructions for reporting releases from sites are the same as those described for facilities below.

2.2 Initial Telephone Notification

When should you notify?

The continuous release reporting regulation requires that an initial telephone notification be made as soon as you have a sufficient basis for establishing that the release is continuous and stable in quantity and rate. You may rely on release data, engineering estimates, knowledge of the plant's operations and release history, professional judgment, or any other method that has a strong technical basis to establish the basis for asserting that the release is continuous and stable in quantity or rate, or you may report the release (to the NRC for CERCLA hazardous substances or to the SERC and LEPC for non-CERCLA EHSs) for a period sufficient to establish the continuity and stability of the release; (for further information on how to establish a release as continuous and stable in quantity and rate, refer to pages 3 and 4 of this Guide).

If a sufficient basis for establishing the release as continuous exists for a CERCLA hazardous substance, a minimum of one telephone call may be made to the NRC, SERC, and LEPC. For non-CERCLA EHSs, only the appropriate SERC and LEPC need be notified. In either case, you may report all continuous releases of hazardous substances at your facility in one telephone report to each authority.

Who must be notified?

If you are the person in charge, owner or operator, of the facility from which a continuous release of a hazardous substance occurs, you must telephone the following organizations:

- For CERCLA hazardous substances:
  - National Response Center (NRC)
    Toll-free telephone number:
    1-800-424-8802;
    Washington, DC area: 1-202-267-2675;
- For CERCLA hazardous substances and non-CERCLA EHSs:
  - The State Emergency Response Commission (SERC) of any state likely to be affected by the release; and
  - The Local Emergency Planning Committee (LEPC) of any area likely to be affected by the release.

Required information

The person in charge (for CERCLA hazardous substances) or the owner or operator (for non-CERCLA EHSs) is required to provide the information listed below to government authorities in the initial telephone notification.

1. Identify your report as a report of a continuous release under CERCLA Section 103(f)(2). It is very important for tracking purposes that the person at the NRC, SERC, and LEPC to whom you speak understands that you are giving the initial telephone notification of a continuous release (rather than an episodic report).

2. Identify the name and location of the facility responsible for the release and provide the corporate affiliation and address.

3. Identify each hazardous substance released.

4. Provide your name and telephone number and, if different, the name and telephone number of the person in charge of the facility.

If you are reporting a release of a CERCLA hazardous substance, when you make this initial telephone call to the NRC, you will be assigned a CR-ERNS number. This CR-ERNS number will become the identifier for your facility. Your CR-ERNS number will never change; it is the number that identifies you in the CR-ERNS database.

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If you are reporting a non-CERCLA EHS to the appropriate SERC or LEPC you will not receive a CR-ERNS number as your SERC and LEPC will use their own methods to track your continuous release.

2.3 Initial Written and Follow-Up Reports

Where and when to submit initial written and follow-up reports?

Within 30 days of your initial telephone call to the NRC, SERC, and LEPC, the initial written report of CERCLA hazardous substances must be submitted to the appropriate government authorities. You must send one copy of the completed initial written report containing the information described in this Section to each of the following organizations:

> The EPA Regional Office for the geographical region in which your facility is located;
>
> The SERC of any state likely to be affected by the release; and
>
> The LEPC of any area likely to be affected by the release.

For reports of CERCLA hazardous substances, the one-time, first anniversary follow-up report must be submitted within 30 days of the first anniversary date of the initial written report to the EPA Regional Office. The first anniversary follow-up report must be submitted to the EPA Regional Office only. You are not required to submit the one-time first anniversary follow-up report to the SERC and LEPC.

Reports of releases of non-CERCLA EHSs must be reported only to the SERC and LEPC. No notification of Federal authorities is required.

What information is required?

The information that you are required to submit for all initial written and follow-up reports can be divided into three primary sections: general information; source information; and hazardous substance information. These sections are described briefly below and the specific information to be included in each of these sections is described more fully in the following pages.

- Section I - General Information. This section includes identifying information about your facility, as well as information concerning the area surrounding your facility.

- Section II - Source Information. This section includes information on each source of the release including: the identity of each source; the basis for stating that the release from a source qualifies as continuous and stable in quantity and rate; the environmental medium affected by the release; the names and quantities of the CERCLA hazardous substances or EHSs released from the source; and the normal range and frequency of the release. This information must be provided separately for each source of the continuous release.

- Section III - Hazardous Substance Information. This section includes the upper bound of the normal range for each hazardous substance released across all sources at a facility. This number is also known as the SSI trigger. Section II should be completed for each release source before you calculate the upper bound of the normal range of the release for each CERCLA hazardous substance or EHSs across all sources at the facility.

Section I: General Information

The information required in Section I of the initial written report and follow-up reports includes general information identifying your facility, as well as information regarding the area in which your facility is located. This general information is important because it provides a better understanding of the potential risks resulting from exposure from the facility's release. A signed statement asserting that the continuous release is continuous and stable in quantity and rate, and that the information supplied is accurate and current to the best of your knowledge, is also required in Section I.

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EXHIBIT 2-1
CHECKLIST OF INFORMATION REQUIRED IN INITIAL AND FOLLOW-UP WRITTEN REPORTS

In addition to the information required on the following pages, Section I must clearly identify the type of written report that you are submitting (i.e., an initial written report, a first anniversary follow-up report, or a written report of the change in source or composition of a previously reported release). You must also include information on the initial notification of the release, such as the date of the release and the date of the initial call. For CERCLA hazardous substances, the CR-ERNS number assigned to you by the NRC will also be required.

Section I: General Information
Part A: Facility Information

In Part A, provide the following information:

1. The complete name of your facility (and company identifier where appropriate). If multiple facilities are included in your written report, provide the plant site name with the name of the facility.

2. The full address of your facility, including the street address or highway marker, city, county, state, and zip code. A post office box number should not be used as the facility address. The address provided should be the location of the facility where the hazardous substance release occurs.

3. The location of your facility by its latitude and longitude in units of degrees, minutes, and seconds. **Exhibit 2-2** includes helpful hints on how to obtain the latitude and longitude coordinates of your facility.

4. The nine digit number assigned by Dun and Bradstreet (D&B) to your facility. This number can be obtained via telephone by an officer of your company from the national office of Dun and Bradstreet (at 1-800-234-3867). If your facility has not been assigned a D&B number, please specify that the information is not applicable.

5. For reports of CERCLA hazardous substances, the CR-ERNS number assigned by the NRC when you made the initial telephone report. Be certain to include the CR-ERNS number on <u>each</u> page of your report.

6. The name, telephone number (including area code), and an alternate telephone number for the person in charge of your facility.

EXHIBIT 2-2
SOURCES OF INFORMATION FOR IDENTIFYING THE LOCATION OF YOUR FACILITY

Sources of data on latitude and longitude coordinates of your facility include EPA permits (e.g., NPDES permits), county property records, facility blueprints, and site plans.

In addition, information on the latitude and longitude of your facility may be obtained from a United States Geological Survey (USGS) topographical map. These maps are available in both the 7.5 minute and 15 minute series. These maps may be obtained from the USGS distribution center at your local public library. If you would like to order a map from USGS, contact:

U.S. Geological Survey
Branch of Distribution
Box 25286 Federal Center
Denver, CO 80225

If you are not certain on which map your site is located, consult the index of topographic maps for your state, which may be obtained from USGS free of charge. USGS maps are also available at commercial dealers such as surveyors or outdoor recreation equipment dealers.

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Section I: General Information
Part B. Population Information

In Part B, provide the following information:

1. Choose the range listed below that most accurately describes the population density within a one-mile radius of your facility:

   0-50 person(s)
   51-100 persons
   101-500 persons
   501-1000 persons
   more than 1000 persons.

2. Identify and describe the location of any sensitive populations or ecosystems (see **Exhibit 2-3** for definitions and examples) within a one-mile radius of your facility. If possible, describe the location of the populations or ecosystems in terms of distance and direction from your facility (e.g., located ¼ mile northwest of the facility). Exact addresses are not required.

EXHIBIT 2-3
DEFINITIONS

Sensitive populations are populations likely to be more susceptible than average individuals to the effects of exposure to a hazardous substance. Examples of sensitive populations are elementary school children, retirement communities, or hospitals.

Sensitive ecosystems are environments likely to be more susceptible than average environments to the effects of exposure to a hazardous substance, or ecosystems that have been designated for special protection by Federal or state governments. Examples of sensitive ecosystems include wetlands, wildlife refuges, tidal basins, or endangered species habitats.

Section II: Source Information

General overview

When completing your written reports, you must take into consideration all sources of the release from your facility. For example, if the aggregate amount of a particular hazardous substance released within 24 hours from your facility equals or exceeds an RQ, then each source of the particular release must be identified, even if some release amounts from individual sources do not equal or exceed the RQ. The purpose of requiring information on the source(s) of the release is to provide EPA with sufficient information to evaluate the risk associated with the continuous release. Providing this information accurately in the initial written and first anniversary follow-up report will minimize future requests by EPA for additional information or clarification.

In this section of the written report, you should identify and describe separately each continuous release source. If the continuous release of the same hazardous substance comes from two or more sources (e.g., two stacks), then information should be reported separately for each of the sources. For example, if a stack is one of several sources of a hazardous substance release at your facility, you must provide information on that stack including: the stack height; the identity of the hazardous substance(s) being released from the stack; the quantity released; and the frequency of the release from the stack. If you have a release of a particular hazardous substance from three stacks, you should report each stack separately and provide the required information specified for each stack.

Although the continuous release reporting regulation allows multiple concurrent releases of the same CERCLA hazardous substance to be considered as if they were one continuous release, aggregate reporting of such releases from different sources complicates risk analyses. Area sources are most readily aggregated for purposes of continuous release reporting and risk evaluation when the frequency of the release from each source is the same. Similarly, aggregated stack releases are most readily evaluated if the frequency of the release from each stack is the same and the stack configurations (e.g., stack height, diameter, throughput) are the same. If you elect to aggregate releases across facilities, be certain to identify information about each source of the release

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from all of your facilities. Also, note that if you aggregate your releases, EPA may request clarifying information about the releases from each of the individual sources.

Identification of sources

In Section II, you must identify (i.e., name) and describe each continuous release source. There are several ways to name release sources. It is important to: (1) provide a name that clearly identifies the source (e.g., centrifugal processor A, rather than Unit A); and (2) avoid giving two or more sources the same name. It is also important to remember when naming your sources that EPA, at any time, may contact you with questions regarding releases from one of your named sources. It would be prudent, therefore, to name the sources at your facility in a manner that will be easy for you and other employees to identify them. For example, if your plant has four stacks, two wastepiles, and twenty-four valves, you may name the sources as follows: Stack #1; Stack #2; Stack #3; Stack #4; Wastepile #1; Wastepile #2; and Valves in Building #2. Note that the "Valves in Building #2" are aggregated in this example and reported as a single source.

Required information

Section II, Source Information, contains three Parts: Part A, Part B, and Part C. You must provide the information required in each of these Parts for <u>each</u> continuous release source. Be sure to place the name of the source on all pages associated with that specific source. A summary of the type of information required in each Part is provided below.

<u>Part A</u> - Requests information on the basis for asserting that the release from each identified source is continuous and stable in quantity and rate.

<u>Part B</u> - Requires specific information on the environmental medium affected by the hazardous substance release from each identified source.

<u>Part C</u> - Requires information on the hazardous substance(s) and mixture(s) released from the identified source, such as the upper bound of the normal range of the hazardous substance.

The information required in Parts A, B, and C is described more fully below and is used to assist EPA and other government authorities in evaluating the risks associated with the continuous release. It is important to remember when completing your format to include for <u>each</u> source all of the information required in each part of Section II.

There is one exception to this rule. If the release from any individual source will affect more than one environmental medium (e.g., a wastepile releasing to air and ground water) it must be modeled separately. Therefore, any source that affects two different media should be treated as two separate sources for purposes of reporting. This is desirable because EPA must analyze each release pathway separately to properly evaluate the risks posed by the continuous release. In addition, because the hazardous substance releases to each medium may differ in frequency and quantity, it is useful to distinguish the releases for purposes of risk evaluation.

Section II: Source Information
Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate

---

In Part A of Section II, you must first identify the source of the release (include the name of the source in all subsequent parts), then briefly describe the basis for stating that the release is continuous and stable in quantity and rate. Your description of the basis for stating that the hazardous substance release is continuous and stable in quantity and rate should include whether the release is continuous without interruption, or is a routine, anticipated, intermittent release. It should also include information on when the release is expected to occur (i.e., evidence of predictability of the release). One example of a release that may be predictable and regular is fugitive emissions from valves that occur at different rates over the course of a production cycle as the pressure inside the system changes. Although the rate of such fugitive emissions may not be strictly uniform, it may be predictable in the sense that the rate and amount of the release vary in a similar manner each time the process is operated or decompression occurs.

Your description should also identify the activity that results in the release (e.g., batch process, operating procedure, loading/unloading, maintenance activity, filling of storage tanks). If the release occurs because of a malfunction, this should be explained

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fully. Note that only certain releases due to malfunctions can qualify as a continuous release. Please refer to the discussion in the preamble of the continuous release Final Rule at 55 FR 30171 or the discussion on page 4 of this Guide to determine whether a malfunction can qualify as a continuous release.

Finally, your description should include information on how you established the pattern of the release and calculated release estimates (e.g., engineering estimates, your best professional judgment, past release data).

In sum, when identifying your sources, refer to the directions aboveon how to name sources. For each source identified, provide the following information.

1. Indicate whether the release is continuous without interruption or abatement or routine, anticipated, and intermittent.

2. Identify the activity or activities that cause the release from the source.

3. If the release results from a malfunction, describe the malfunction and explain why the release should be considered continuous and stable in quantity and rate.

4. Identify how you established the pattern of the release and calculated release estimates.

Section II: Source Information
Part B. Specific Information on the Source

In Part B of Section II of your written report, you must identify the environmental medium (i.e., air, surface water, soil, or ground water) affected by the hazardous substance release from <u>each</u> source identified in Section II, Part A. In addition, you must provide specific information on the source and its affectedenvironment. It is important to remember that if you have a release from a single source that affects two different media (e.g., gypsum stack releasing radon to air and radionuclides to ground water), you should treat the release to each medium as separate source for purposes of reporting. Another important point to remember when completing all sections of the written report is to include the appropriate units, such as kilograms, meters, or curies.

For each source identified in Part B, provide the following information.

Environmental medium

Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from the identified source.

1. Air

   If the medium affected is air, provide the following information:

   (a) Indicate whether the source is a stack or ground-based area source.

   (b) If the source is a stack, provide the stack height in feet or meters. The stack height is the distance from the ground to the top of the stack.

   (c) If the source is an area source (e.g., a waste pile, surface impoundment, landfill, valve, pump seal, or storage tank vent), provide an estimate of the surface area or area of the release source including the appropriate unit such as square feet, square meters, or acres.

2. Surface Water

   If the medium affected is surface water, provide the following information:

   (a) If the release affects any surface water body, give the name of the water body.

   (b) If the release affects a stream, give the "stream order" or the average flow rate (in cubic feet per second). This information can be obtained from your state water resource division of USGS. If you cannot locate this information, use the chart in **Exhibit 2-4** to estimate the flow rate according to the velocity of the stream. If the velocity of the stream fluctuates during the year, use the average velocity when calculating average flow rate.

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EXHIBIT 2-4
ESTIMATED AVERAGE STREAM FLOW RATES

Stream Order	Mean Flow (CFS)	Mean Velocity (feet/sec)
1	0.65	1.0
2	3.10	1.3
3	15.00	1.5
4	71.00	1.8
5	340.00	2.3
6	1,600.00	2.7
7	7,600.00	3.3
8	56,000.00	3.9
9	171,000.00	5.6
10	810,000.00	5.9

CFS = Cubic Feet/Second

(c) If the release affectsa lake, or other large surface water body (e.g., a bay) give the surface area of the lake (in acres) and the average depth (in feet or meters). **Exhibit 2-5** includes sources of information on how to determine the average depth of a lake.

EXHIBIT 2-5
SOURCES OF INFORMATION FOR ESTIMATING AVERAGE LAKE DEPTH

If the lake is large enough to be navigable, your local Coast Guard office will have a navigation chart that will provide the average depth of the lake. For smaller lakes, you may estimate the average depth of the lake by relying on your knowledge of the use of the lake and the surrounding area, and your best professional judgment.

3. Soil or Ground Water

If the medium affected is soil or ground water, provide the following information:

(a) If the release is on or under ground, indicate the distance to the closest water well within a two-mile radius of the site. Information regarding the location of public water supply wells may be available through the county office that issues permits for wells.

Optional information

The following information is not required in the Continuous Release Rule; however, such information will assist EPA in evaluating the risks associated with a continuous release. If the information below is not provided, conservative values will be used to evaluate the risks associated with the continuous release.

1. If the source is a stack release to air, provide the: (a) inside diameter of the stack; (b) gas exit velocity; and (c) gas temperature.

2. If the release affects surface water, provide the average velocity of the surface water.

Section II: Source Information
Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released

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For each source, you must report information about the identity and quantity of the hazardous substances released from the source. In particular, you must identify the normal range of each release and the total annual quantity released during the previous year from each source. The regulatory definition of the "normal range" of a continuous release is provided in **Exhibit 2-6**.

EXHIBIT 2-6
NORMAL RANGE

The **normal range** of a continuous release includes all releases of a hazardous substance (in pounds or kilograms) reported or occurring during any 24-hour period under normal operating conditions during the previous year. Only releases that are both continuous and stable in quantity and rate may be included in the normal range.

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EXHIBIT 2-7: EXAMPLES OF REPORTING SINGLE HAZARDOUS SUBSTANCES

In this example, your facility has a release which may qualify for reduced reporting as a continuous release. The hazardous substances released from the identified source (Stack A) are nitrogen dioxide (10102440) and nitric oxide (10102439).

The volume of nitrogen dioxide (NO_2) released in a 24-hour period is between 0 and 120 lbs. During the previous year, 960 lbs of NO_2 was released. The release occurs once per week in February and June for a total of 8 days per year. The amount of nitric oxide (NO) released is between 1 and 115 lbs. The release of NO occurs approximately 120 days each year. A total amount released last year was 13,800 lbs.

For these releases from the specific source, you must provide the information outlined below.

Name of Hazardous Substance	CASRN#	Normal Range (specify lbs. or kg) Upper Bound	Normal Range (specify lbs. or kg) Lower Bound	Total Annual Amount Released (specify lbs. or kg)	Number of Days Release Occurs (Per year)	Number of Days Release the Release Months of
Nitrogen dioxide (NO_2)	10102440	120 lbs	0 lbs	960 lbs.	8	February; June
Nitric oxide (NO)	10102439	115 lbs	1 lb	13,800 lbs.	120	All 12 months

You are not necessarily required to monitor releases to determine the normal range of the release. You may establish the normal range by using engineering estimates of releases under various operating conditions, knowledge of the operating history of the facility, experience with operating processes, professional judgment, or any other method that has a sound technical basis. EPA will use the upper bound of the normal range to estimate the risks to human health and the environment posed by the hazardous substance release.

To provide the required information regarding the quantity of the hazardous substance released from each identified source, you should begin by determining whether the release is a single hazardous substance or a mixture of hazardous substances. If the release is of one or more single hazardous substances, follow the directions provided below in **Example A**. If the release is a mixture of hazardous substances, you have two options. For a mixture you may complete Part C either: 1) by reporing each hazardous substance as if it were a discrete and separate release (as in **Example A**); or 2) by reporting the release as a mixture and identifying the hazardous substance components of the mixture along with information on the weighted contribution of each component in the mixture (as in **Example B**).

Example A: Single hazardous substances

For each source, follow the directions below to report each hazardous substance released from the source that is a single hazardous substance or a component of a mixture that you wish to report separately. **Exhibit 2-7** provides an example of how to report releases of single hazardous substances.

1. Identify the hazardous substance released by name and by Chemical Abstracts Service Registry Number (CASRN). The CASRN for a hazardous substance can be located in any material safety data sheet or in most chemical supplier company catalogues.

2. Provide the upper and lower bounds of the normal range of the release from the identified source (i.e., quantity in pounds, kilograms, or curies) during the previous year.

3. Estimate the total annual amount (in pounds, kilograms, or curies) of the hazardous substance

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released from the identified source during the previous year.

TABLE 2-8: EXAMPLE OF REPORTING A MIXTURE

In this example, if your facility wants to report the release of a mixture of hazardous substances, you must list each component of the mixture by hazardous substance and include its percentage by weight. For example, for the release of mixture Z, you must provide the following information about its components, ethylene oxide, acrolein, and 2,3,5-tri-chlorophenol:

Name of Mixture	Name of Hazardous Substance Components	Weight CASRN#	Weight Percentage	Normal Range of Components Upper Bound	Normal Range of Components Lower Bound	Normal Range of Mixture Upper Bound	Normal Range of Mixture Lower Bound	Number of Days Release Occurs (Per year)	Total Quantity of Mixture Released in Of the Previous Year	Months Of the Release
Z	(components listed below)					100 lbs	0 lbs	365	79,500 lbs	All 12 Months
Z	Ethylene oxide	75218	10%	10 lbs	0 lbs					
Z	Acrolein	107028	15%	15 lbs	0 lbs					
Z	2,3,5-tri-chlorophenol	933788	20%	20 lbs	0 lbs					

4. Specifythe frequency of the release by indicating the number of days the release occurs per year from the identified source. Stating "continuous" is not sufficient, as one source may be continuously operating 365 days a year, while another source may be continuously operating on weekdays, 261 days a year.

5. Indicate the actual months the release occurs.

Example B: Mixture

For each source, follow the directions below to report each mixture released from the source. **Exhibit 2-8** provides an example on how to report a mixture.

1. Identify the mixture by name (e.g., Blue Pigment #25).

2. Identify each hazardous substance component of the mixture by name and CASRN.

3. Estimate the percentage by weight of each hazardous substance component of the mixture.

4. Provide the upper and lower bounds (i.e., quantity in pounds, kilograms, or curies) of the normal range of each hazardous substance component of the mixture that was released from this source. To calculate the upper bound of the normal range of each hazardous substance component, multiply the weight percentage of each component by the upper bound quantity of the mixture.

5. Provide the upper and lower bounds (i.e., quantity in pounds, kilograms, or curies) of the normal range of the mixture that was released from the identified source during the previous year.

6. Specifythe frequency of the release by indicating the number of days the release occurs per year from the identified source. Stating "continuous" is not sufficient, as one source may be continuously operating 365 days a year, while another source may be continuously operating on weekdays, 261 days a year.

7. Estimate the total annual quantity (in pounds, kilograms, or curies) of the mixture that was released from the identified source during the previous year.

8. Indicate the actual months the release occurs.

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Section III: Hazardous Substance Information

After you provide the required information for all sources of continuous releases from your facility, you must aggregate information of a hazardous substance release from all sources to determine the SSI trigger (upper bound of the normal range) for each hazardous substance released at your facility.

The SSI trigger of a particular hazardous substance is calculated by aggregating the upper bounds of the hazardous substance released across all sources at a facility.

If you are aggregating CERCLA hazardous substance releases from separate, contiguous, or adjacent facilities and reporting them in a single report, aggregate the upper bound of the normal range of the hazardous substance released from all sources at the site to determine the SSI trigger. If you aggregate your releases across facilities, the SSI trigger must also be site-specific, not facility-specific. Aggregating releases across facilities at the same site may reduce your reporting burden; however, EPA will evaluate the risks associated with the releases as if the releases were from one facility.

To calculate the SSI trigger for each hazardous substance you should:

1. List each specific source name and enter the upper bound of the normal range of the release from that source. If the identified hazardous substance is a component of a mixture, enter the upper bound of the normal range for that component of the mixture (as determined in Section II, Part C).

2. Aggregate the upper bound quantities from each source of the release. Report these totals as the SSI trigger for the hazardous substance. The example that is provided in **Exhibit 2-9** illustrates the calculation of the SSI trigger for a release of ammonia.

The above method for calculating the SSI trigger of a hazardous substance assumes that all releases of the same hazardous substance occur simultaneously (i.e., over the same 24-hour period). To the extent that the frequency of the release differs, you may adjust the SSI trigger so that it more accurately reflects the frequency and quantity of the hazardous substance released from all sources over a 24-hour period. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility. The normal range of the release includes all continuous releases previously reported or occurring over a 24-hour period during the previous year.

EXHIBIT 2-9: CALCULATION OF THE SSI TRIGGER FOR A HAZARDOUS SUBSTANCE

Hazardous Substance	Source	Upper Bound
Ammonia	Tank Vents in Building #1	120 lbs.
	Valves in Building #5	115 lbs.
Upper Bound for Ammonia		235 lbs.*

* For purposes of this example, it is assumed that the only sources of the ammonia release at the facility are the Tank Vents in Building #1 and the Valves in Building #5.

Signed statement

After providing the information required in Sections I through III, as described above, the person in charge of the facility must sign a statement asserting that the information provided is accurate and current to the best of his or her knowledge. This statement must be similar to the following:

"I certify that the hazardous substance releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge."

In addition, the person in charge of the facility must print clearly his/her name and position and date the certification statement.

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2.4 Notifications of Statistically Significant Increases

When do you submit SSI reports?

An SSI is an episodic release that must be reported whenever the hazardous substance release exceeds the continuous release SSI trigger (i.e., the upper bound of the normal range of the release) within a 24-hour period. The determination of whether a release is an SSI should be based upon calculations or estimation procedures that identify the release as exceeding the upper bound of the reported normal range of the continuous release. The person in charge of a facility must report an SSI of a CERCLA hazardous substance to the NRC, SERC, and LEPC, and the owner or operator of a facility must report an SSI of a non-CERCLA EHS to the SERC and LEPC, as soon as the facility is aware that the release has occurred.

Who must be notified?

If you are the person in charge, or owner or operator, of the facility from which an SSI in a continuous release occurs, you must telephone the following government organizations:

- For CERCLA hazardous substances:
  - NRC
    Toll-free telephone number:
    1-800-424-8802;
    Washington, DC area: 1-202-267-2675;
- For CERCLA hazardous substances and non-CERCLA EHSs:
  - The SERC of any state likely to be affected by the release; and
  - The LEPC of any area likely to be affected by the release.

In addition to these notifications, under the requirements of SARA Title III Section 304, you must submit a written follow-up notice to the SERC and LEPC. For information on the addresses and telephone numbers of SERCs and LEPCs, contact the RCRA/Superfund/EPCRA Hotline toll free at 1-800-424-9346. (See **Exhibit 1-7** on page 14)

What type of information is required in SSI reports?

In the telephone notification, the release should be identified as an SSI. For reports of releases of CERCLA hazardous substances, the person in charge of the facility should also provide the original CR-ERNS number assigned by the NRC. This will ensure that the SSI report is recorded correctly and evaluated properly.

The person in charge will be asked to provide all of the information required in an episodic release report under CERCLA Section 103(a). An SSI is a type of episodic release. It represents a release of a hazardous substance above an RQ that has never been evaluated or considered.

What are that requirements for modifying the SSI trigger?

In the event that a particular continuous release at a facility frequently exceeds the upper bound of the normal range, the person in charge may want to modify the previously established upper bound(s) of the relevant hazardous substances as an alternative to reporting successive SSIs.

To modify the SSI trigger, you must report at least one release as an SSI (to facilitate immediate evaluation). During such a report, you may also notify the government authorities of the new upper bound of the release. For reports of CERCLA hazardous substances, within 30 days of the telephone notification, you must submit a written notification to the EPA Regional Office in your geographical area, describing the new normal range, the reason for the change, and the basis for certifying that the release is continuous and stable at the higher amount. A modification of the SSI trigger is a type of change in source or composition and therefore is reported as a new release under the "old" CR-ERNS number. Although it is not required, it is also advised that you notify the appropriate SERC and LEPC.

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2.5 Reports of Changed Releases

Where and when do you submit reports of changed releases?

The person in charge of the facility must notify the appropriate government authorities if there are any of the following changes in a continuous release.

Change in Source or Composition

If there is a change in the source(s) or composition of a continuous release, the release is considered a "new" release. A change in the source(s) or composition of a release may be caused by factors such as equipment modifications or process changes. The new release may pose a hazard that warrants timely evaluation and, therefore, to report this new release under CERCLA Section 103(f)(2), you must establish the new release as continuous and stable in quantity and rate (i.e., for CERCLA hazardous substances, call the NRC, SERC, and LEPC; for non-CERCLA EHSs, call the SERC or LEPC; and in both cases, submit a new initial written report and follow-up report).

For CERCLA hazardous substances, when you make the initial telephone call to the NRC, provide your original CR-ERNS number. When submitting your new written initial report to the EPA Regional Office, SERC, and LEPC (for a report of a release of a CERCLA hazardous substance), or only the SERC and LEPC (for a report of a release of a non-CERCLA EHS), be certain to specify whether you are adding a new source(s), deleting a source(s), or modifying the list of hazardous substances previously reported. In addition, if your change report includes information that has already been submitted, please clearly differentiate between the new or changed information and the previously reported information by either placing a check mark in the left hand margin, highlighting the information, or using any other means to identify the changed or new information. It is important to clearly identify new or changed information.

Please note that each time you submit a written report of a change in the source or composition of a release, you must recalculate the upper bound of the normal range for each affected hazardous substance. For example, if you add a source from which two single hazardous substances (i.e., HS #1 and HS #2) are released and you have previously reported releases of these same substances from other sources, you must recalculate, in Section III of the reporting format, the upper bound of the normal range for both HS #1 and HS #2. To obtain the new upper bound for HS #1, you must add the upper bound of HS #1 released from the new source to the upper bound of HS #1 released from all other sources at your facility. The new upper bound for HS #2 should be calculated in a similar manner.

Other Changes

If there is a change in the information submitted in the initial written or follow-up reports of a release of a CERCLA hazardous substance (other than a change in the source or composition of the release) the person in charge must notify the EPA Regional Office in writing within 30 days of determining that the information submitted previously is no longer valid. One example of a change in the information submitted previously, other than a change in the source or composition of the release, is a change in ownership in the facility.

All notifications of changes in releases of CERCLA hazardous substances must include the CR-ERNS number assigned by the NRC in your initial telephone notification that identifies the facility. You must also include a signed statement (see page 27 of this Guide) certifying that the release is continuous and stable in quantity and rate, and that all the reported information on the release is accurate and current.

Although not required, it is advised that the appropriate SERC and LEPC be notified of any changes in other information regarding release of either CERCLA hazardous substances or non-CERCLA EHSs.

ED_001803A_00006254-00014

2.6 Summary

Prior to sending your report to the appropriate government authorities, ensure that you have:

1. Included the original CR-ERNS number identifying your facility on each page of the report, if applicable;

2. Completed all information requested in Sections I, II, and III;

3. Included supplementary pages, if needed. (It would be helpful to number the additional pages of information submitted sequentially in accordance with the sections and subsections of the reporting format (e.g., Section II, Part A, page 2).)

4. Indicated the appropriate units (e.g., meters, kilograms, or curies), in all sections;

5. Provided a unique name for each source identified and have indicated the source name on Parts A, B, and C of Section II;

6. Included the certification statement and signed the report; and

7. Made sufficient copies of the report for your files.

ED_001803A_00006254-00015

APPENDIX A

ACRONYMS

ACRONYMS

CASRN	--	Chemical Abstracts Service Registry Number
CERCLA	--	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	--	Code of Federal Regulations
CR-ERNS	--	Continuous Release Emergency Response Notification System
EHS	--	Extremely Hazardous Substance
EPA	--	Environmental Protection Agency
EPCRA	--	Emergency Planning and Community Right-to-Know Act
FR	--	Federal Register
LEPC	--	Local Emergency Planning Committee
NRC	--	National Response Center
RQ	--	Reportable Quantity
SARA	--	Superfund Amendments and Reauthorization Act of 1986
SERC	--	State Emergency Response Commission
SSI	--	Statistically Significant Increase
TERC	--	Tribal Emergency Response Commission
TRI	--	Toxic Release Inventory
VNTSC	--	John A. Volpe National Transportation Center

APPENDIX B

SUGGESTED CONTINUOUS RELEASE REPORTING FORMAT (BLANK)

APPENDIX C

SUGGESTED CR-ERNS REPORTING FORMAT -- ADDENDUM TO TRI FORM R (BLANK)

APPENDIX D

COMPLETED SUGGESTED CONTINUOUS RELEASE REPORTING FORMAT

APPENDIX E

COMPLETED SUGGESTED CR-ERNS REPORTING FORMAT -- ADDENDUM TO TRI FORM R

Cc: Traylor, Patrick[traylor.patrick@epa.gov]; Bowman, Liz[Bowman.Liz@epa.gov]
To: Jackson, Ryan[jackson.ryan@epa.gov]
From: Bodine, Susan
Sent: Fri 10/6/2017 12:11:03 AM
Subject: Fwd: Emergency Administrative Order issued to Crow Tribe
EAO Crow Tribe Oct 2017.pdf
ATT00001.htm

First we heard of this.
1431 order to a WY tribe

Sent from my iPhone

Begin forwarded message:

From: "Theis, Joseph" <Theis.Joseph@epa.gov>
To: "Starfield, Lawrence" <Starfield.Lawrence@epa.gov>
Cc: "Kelley, Rosemarie" <Kelley.Rosemarie@epa.gov>, "Pollins, Mark" <Pollins.Mark@epa.gov>, "King, Carol" <King.Carol@epa.gov>, "Porter, Amy" <Porter.Amy@epa.gov>, "OKeefe, Susan" <OKeefe.Susan@epa.gov>, "Bodine, Susan" <bodine.susan@epa.gov>, "Traylor, Patrick" <traylor.patrick@epa.gov>
Subject: Fwd: Emergency Administrative Order issued to Crow Tribe

Larry,
Attached FYI is an emergency order issued earlier this evening to the Crow Tribe to address potential contamination to their drinking water system caused by recent extensive damage from vandalism. Region 8 coordinated in advance with WED and XPS and we understand that the Region contacted the Tribal Chairman this afternoon prio to issuance of the order. Let us know if you have any questions.
- Joe

Sent from my iPhone

Begin forwarded message:

From: "Cantor, Tiffany" <Cantor.Tiffany@epa.gov>
To: "Pollins, Mark" <Pollins.Mark@epa.gov>, "Theis, Joseph" <Theis.Joseph@epa.gov>, "Bahk, Benjamin" <Bahk.Benjamin@epa.gov>, "Denton, Loren" <Denton.Loren@epa.gov>, "King, Carol" <King.Carol@epa.gov>, "OKeefe, Susan" <OKeefe.Susan@epa.gov>
Cc: "Palomares, Art" <Palomares.Art@epa.gov>, "Opekar, Kimberly" <Opekar.Kimberly@epa.gov>
Subject: Emergency Administrative Order issued to Crow Tribe

Good Evening Everyone,

Attached is the Emergency Administrative Order issued today. If you have any questions, please let me know.

Thanks!

Tiffany

****

Tiffany Cantor

SDWA Enforcement Unit Supervisor

Water Technical Enforcement Program

1595 Wynkoop St. (8ENF-W-SDW)

Denver, CO 80202

Phone: 303-312-6521

****

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region08

2017 OCT -5 PM 3:42

FILED
EPA REGION VIII
HEARING CLERK

Ref: 8ENF-W-SDW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Alvin Not Afraid, Jr., Chairman
Crow Tribe
P.O. Box 159
Crow Agency, Montana 59022

Ms. Dayle Felicia, Director
Apsáalooke Water and Waste Water Authority
P.O. Box 520
Crow Agency, Montana 59022

Re: Emergency Administrative Order under Section 1431 of the Safe Drinking Water Act, Crow Agency (TP02) Public Water System, PWS ID# 083090011, Docket No. **SDWA-08-2018-0001**

Dear Chairman Not Afraid and Ms. Felicia :

Enclosed is an Emergency Administrative Order (Order) issued by the U.S. Environmental Protection Agency (EPA) to the Apsáalooke Water and Waste Water Authority (AWWWA) and the Crow Tribe (Tribe) pursuant to section 1431 of the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300i, in response to conditions at the Crow Agency Public Water System (System) that may present an imminent and substantial endangerment to human health. The Order sets forth the actions the AWWWA and the Tribe must take to ensure that the people served by the System are provided with safe drinking water.

On October 4, 2017, EPA was notified that that the System was vandalized, causing extensive damage to the System's water treatment plant. Damage included destruction of the gas chlorination system, the SCADA system, and chemical plant feed components. It is unknown if other actions such as intentional contamination of the water in the clarifier and clearwell also occurred. The plant was running when the vandalism was discovered, and it is unknown how much, if any, contaminated water was sent to the distribution system. Therefore, the consumers of the water have the potential to be exposed to unknown contaminants, which may present an imminent and substantial endangerment to human health.

The enclosed Order sets forth the actions AWWWA and the Tribe must take to address the current emergency situation, including notifying the affected public of the situation described in the Order, distributing a Do Not Use advisory, and sampling the drinking water for chemical, radiological and bacteriological contaminants.

Additionally, EPA encourages you to perform a security assessment, considering such things as fencing, locks on doors and fencing, routine patrols by security personnel, and surveillance.

This Order is intended to help you provide safe drinking water to your community. If your staff has technical questions, they may contact Olive Hofstader at (800) 227-8917, extension 6467, or (303) 312-6467 or by email at hofstader.olive@epa.gov. If you are represented by an attorney or have legal questions, please contact Amy Swanson, Enforcement Attorney, at (800) 227-8917, extension 6906, or at (303) 312-6906 or by email at swanson.amy@epa.gov.

Sincerely,

for Arturo Palomares, Director
Water Technical Enforcement Program
Office of Enforcement, Compliance
and Environmental Justice

cc: Ms. Connie Howe, Environmental Director
Mr. Dennis Bear Dont Walk, Attorney
Mr. Gerald Pease, Public Works Cabinet Head

Ms. Melissa Haniewicz, Regional Hearing Clerk
U.S. EPA Region 8

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

2017 OCT -5 PM 3:42

FILED
EPA REGION VIII
HEARING CLERK

IN THE MATTER OF	Docket No. SDWA-08-2018-0001
Apsáalooke Water and Waste Water Authority, Operator, and The Crow Tribe, Owner,	**EMERGENCY ADMINISTRATIVE ORDER**
Crow Agency (TP02) Public Water Supply, PWS ID # 083090011,	
Respondents.	Proceeding under section 1431(a) of the Safe Drinking Water Act

AUTHORITY AND FINDINGS

1. This Emergency Administrative Order (Order) is issued by the Environmental Protection Agency (EPA) pursuant to the authority of section 1431(a) of the Safe Drinking Water Act (Act), 42 U.S.C. § 300i(a). The undersigned officials have been properly delegated this authority.

2. Failure to comply with this Order may result in civil penalties of up to $22,906 per day. 42 U.S.C. § 300i(b); 40 C.F.R. part 19; 82 Fed. Reg. 3633 (January 12, 2017).

3. The EPA may issue an order pursuant to section 1431(a) of the Act, 42 U.S.C. § 300i(a), upon receipt of information that that there is an intentional act designed to disrupt the provision of safe drinking water or to impact adversely the safety of drinking water supplied to communities and individuals, which may present an imminent and substantial endangerment to the health of persons, and appropriate State or local authorities have not acted, or do not have the authority to act, to protect human health.

4. The EPA has primary enforcement responsibility for the Act's public water supply protection program on the Crow Reservation. No other governmental authority has applied for and been approved to administer the program on the Reservation.

5. The Apsáalooke Water and Waste Water Authority (AWWWA) is a tribal agency organized under the laws of the Crow Tribe and is therefore a "person" as that term is defined in the Act and its implementing regulations. 42 U.S.C. § 300f(12); 40 C.F.R. § 141.2.

6. The Crow Tribe is a federally recognized tribe and is therefore a "person" as that term is defined in the Act. 42 U.S.C. § 300f(10), (12), (14).

7. Respondents AWWWA and the Crow Tribe own and/or operate the the Crow Agency (TP02) Public Water System (System) located near Crow Agency, Montana, that provides water to the public for human consumption.

8. The System is supplied by surface water from the Little Big Horn River, which serves 1300 users through 406 service connections.

9. Systems that have at least 15 service connections or regularly serve at least 25 people per day at least 60 days per year are "public water systems" as defined in section 1401(4) of the Act, 42 U.S.C. § 300f(4), and therefore, are subject to the requirements of the Act and the National Primary Drinking Water Regulations (NPDWR) at 40 C.F.R. part 141.

10. The EPA has determined that conditions exist at the System that may present an imminent and substantial endangerment to the health of persons. On October 4, 2017, EPA was notified that at approximately 8:00 a.m. an operator discovered that the System had been vandalized. Damage included destruction of the gas chlorination system, the SCADA system, and chemical plant feed components. It us unknown if other actions such as intentional contamination of the water in the clarifier and clearwell also occurred. The plant was running when the vandalism was discovered, and it is unknown how much, if any, contaminated water was sent out to distribution. Therefore, the consumers of the water have the potential to be exposed to unknown contaminants which may present an imminent and substantial endangerment to human health.

11. Before issuing this Order, the EPA consulted with the AWWWA, the Tribe, the System operator, and other governmental authorities to confirm the facts, and has determined that this Order is necessary to protect human health.

ORDER

INTENT TO COMPLY

12. Within 24 hours of receipt of this Order, Respondents must notify the EPA in writing of their intent to comply with the terms of this Order. Notification by email to the EPA point of contact identified below is acceptable.

PUBLIC NOTICE

13. Within 24 hours of receipt of this Order, Respondents must notify the public in the affected area of the situation described in this Order and distribute the Do Not Use public notice provided by the EPA on October 4, 2017. The notice must be distributed door-to-door as well as posting it in conspicuous locations and announced on the local radio station. Respondents must submit a copy of the notice to the EPA within 24 hours of its distribution. Respondents must continue providing the public notice until the EPA provides written notification to discontinue.

ALTERNATE WATER SUPPLY

14. Upon receipt of this Order, Respondents shall notify the public that an alternate potable water supply is available. Respondents shall provide at least two liters of potable water daily per person at a central location that is accessible to all persons served by the System. Respondents may also opt to provide an alternate water supply that is either 1) provided by a licensed water distributor, 2) purchased bottled water, or 3) provided by another public water system that meets the requirements of the NPDWRs. The alternate water supply shall be made available at no cost to all users of the System as needed for drinking and cooking until water service is restored to affected users of the System.

EMERGENCY SAMPLING

15. Respondents shall conduct emergency sampling for unidentified chemical and radiological contaminants and deliver the special purpose samples to the Montana State Lab for analysis on October 5, 2017. The required sampling locations are the clearwell in the water plant and the local elementary school.

16. Respondent shall collect two special purpose samples from the clearwell and the local elementary school to be analyzed for total coliform and *E.coli.*

17. Respondents shall submit to EPA the results of all samples immediately upon receipt of the lab analyses.

18. The EPA may require Respondents to increase sampling at any time while this Order is in effect.

COMPLIANCE AND CORRECTIVE MEASURES

19. Respondents must conduct a complete assessment of damage to the water plant (including, but not limited to, all filtration equipment, electrical components, telemetry components and computer, and disinfection components).

20. The completed damage assessment must be submitted to the EPA within 15 days and must describe damage detected and repairs necessary to return the water plant to operation in compliance with drinking water regulations.

21. Within 30 days of the effective date of this Order, Respondents shall provide the EPA with a plan and schedule that outlines actions taken or to be taken based on the damage assessment. The plan shall include proposed system modifications, estimated costs of modifications, and a schedule for completion of the project. The proposed schedule shall include specific milestone dates and a final completion date. The schedule must be approved by the EPA before construction or modifications may commence.

22. The schedule required by paragraph 21, above, will be incorporated into this Order as an enforceable requirement upon written approval by the EPA. If implementation of the plan fails to return the plant to operation in compliance with the drinking water regulations, the EPA may order further steps.

23. Respondent shall not send water from plant TP02 until completion of all repairs and written approval by EPA.

NOTIFY EPA OF SITUATIONS WITH POTENTIAL ADVERSE EFFECTS TO PUBLIC HEALTH

24. Respondents must notify EPA within 24 hours after learning of a violation or situation with the potential to have serious adverse effects on human health as a result of short-term exposure to contaminants. 40 C.F.R. § 141.202(b)(2).

REPORTING

25. Respondents must submit all monitoring and reporting required above to the EPA by telephone and email or fax within 24 hours of receiving the results. These reports should also include daily updates on the System's status and progress towards restoring normal water service.

26. The point of contact for all communication with EPA in this matter is:

Olive Hofstader
E-mail: Hofstader.olive@epa.gov
Telephone: (800)227-8917, ext. 6467, or (303) 312-6467
Fax: (303) 312-7518

27. This Order does not affect any legal requirement or EPA's legal enforcement options in this matter. This Order constitutes final agency action. Under section 1448(a) of the SDWA, 42 U.S.C. 300j-7(a), Respondents may seek federal judicial review of SDWA section 1431 emergency orders.

Issued and effective this 5th day of October, 2017.

James H. Eppers, Supervisory Attorney
Legal Enforcement Program
Regulatory Enforcement Unit
Office of Enforcement, Compliance
and Environmental Justice

For Arturo Palomares, Director
Water Technical Enforcement Program
Office of Enforcement, Compliance
and Environmental Justice

To: Jackson, Ryan[jackson.ryan@epa.gov]; Bowman, Liz[Bowman.Liz@epa.gov]
From: Bodine, Susan
Sent: Fri 9/22/2017 10:54:50 PM
Subject: Fwd: No Action Assurance for Mobile Power Generators in Puerto Rico
NAA for Mobile Power Generators in Puerto Rico 09.22.2017.pdf
ATT00001.htm

Sent from my iPad

Begin forwarded message:

From: "Belser, Evan" <Belser.Evan@epa.gov>
Date: September 22, 2017 at 6:48:43 PM EDT
To: "Bodine, Susan" <bodine.susan@epa.gov>, "Traylor, Patrick" <traylor.patrick@epa.gov>, "Starfield, Lawrence" <Starfield.Lawrence@epa.gov>, "Shiffman, Cari" <Shiffman.Cari@epa.gov>, "Miles, Erin" <Miles.Erin@epa.gov>, "Senn, John" <Senn.John@epa.gov>, "Kelley, Rosemarie" <Kelley.Rosemarie@epa.gov>, "Fogarty, Johnpc" <Fogarty.Johnpc@epa.gov>, "Holmes, Carol" <Holmes.Carol@epa.gov>, "Brooks, Phillip" <Brooks.Phillip@epa.gov>, "Werner, Jacqueline" <Werner.Jacqueline@epa.gov>, "Jorquera, Mario" <Jorquera.Mario@epa.gov>, "Chapman, Apple" <Chapman.Apple@epa.gov>, "Miller, Anthony" <Miller.Anthony@epa.gov>, "Fried, Gregory" <Fried.Gregory@epa.gov>
Subject: No Action Assurance for Mobile Power Generators in Puerto Rico

Please find attached a No Action Assurance to facilitate the importation and use of much-needed mobile power generators in Puerto Rico. **Ex. 5 - Attorney Client**

Ex. 5 - Attorney Client

Ex. 5 - Attorney Client

Thank you to everyone who helped create and get this out today. I will immediately convey to my contact at the Governonr's office (Justin Higgins (Puerto Rico Federal Affairs

Administration, 336-905-0687, jhiggins@prfaa.pr.gov), as well as the power authority, Region 2 contacts, the Emergency Operations Center, and a team of EPA communications professionals who are developing an announcement.

Thanks,
Evan

Evan Belser

Chief, Vehicle and Engine Enforcement Branch

United States Environmental Protection Agency

202-564-6850

Cell: 202-768-4494

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

September 22, 2017

No Action Assurance for Mobile Power Generators for Hurricane Recovery Efforts in Puerto Rico

The United States Environmental Protection Agency (EPA) will exercise its discretion not to pursue enforcement for certain violations of the Clean Air Act concerning mobile power generators in Puerto Rico. The generators covered by this No Action Assurance (NAA), and the scope and conditions of this NAA, are detailed below. In short, under Category A, this NAA allows for the import and sale of mobile power generators that, while not legal for import and sale in Puerto Rico, satisfy air pollution emissions standards that are similar to current EPA standards. Under Category B, this NAA allows for the import and use of other mobile power generators, but only if they are removed from Puerto Rico once the need for them passes.

The issuance of this NAA is in the public interest, and is issued at the request of the Governor of Puerto Rico. Through today's NAA, the EPA is continuing its commitment to address the very difficult circumstances caused by recent hurricanes, especially Hurricane Maria. Preliminary information indicates extreme damage to Puerto Rico's power grid, including near-total destruction to power transmission.

The units covered by this NAA include only those units meeting all of the following criteria, referred to hereafter as "Mobile Power Generators":

1. The unit is an internal combustion engine (subject to 40 C.F.R. Parts 1039, 1048, or 1054) that is used in or on a piece of equipment (this does not include loose engines, that is, those not already used in or on a piece of equipment);
2. The unit is designed to and is capable of generating electricity;
3. The unit is portable or transportable, meaning designed to be and capable of being carried to or moved from one location to another; and
4. The unit is not used to power any vehicle or vessel, and is not stationary (that is, regulated under 40 C.F.R. Part 60 or otherwise subject to New Source Performance Standards promulgated under section 111 of the CAA, 42 U.S.C. § 7411).

This NAA arises under Part A of Title II of the Clean Air Act (CAA), §§ 202–219, 42 U.S.C. §§ 7521–7554, and the regulations promulgated thereunder. These laws aim to reduce emissions from mobile sources of air pollution, including Mobile Power Generators. Sections 203(a) and 213(d) of the CAA, 42 U.S.C. §§ 7522(a) and7547(d), and 40 C.F.R. § 1068.101(a)(1) prohibit manufacturers from selling, offering for sale, introducing into commerce, delivering for introduction into commerce (or causing any of the foregoing with respect to) non-compliant Mobile Power Generators. These laws also prohibit any person from importing or causing the import of

non-compliant Mobile Power Generators. Here, "non-compliant" means Mobile Power Generators that are not covered by an EPA-issued Certificate of Conformity (for both exhaust and evaporative emission standards) and labeled accordingly, and which are neither exempted nor excluded from the certification and labeling requirements.

The EPA will exercise its discretion not to pursue enforcement for the following violations concerning Mobile Power Generators. This NAA provides only the relief specified below. The scope of this NAA, as well as the various conditions imposed below, are designed to facilitate the importation and use of Mobile Power Generators to aid in hurricane relief, but also to prevent excess air pollution from the continued use of non-compliant Mobile Power Generators once emergency conditions in Puerto Rico have subsided.

Category A: Mobile Power Generators that satisfy emissions standards similar to current EPA standards, and are labeled accordingly

The EPA will exercise its discretion not to pursue enforcement for the sale, offering for sale, introduction into commerce (including lease), delivery for introduction into commerce (including lease), importation of (or causing the foregoing with respect to) the following Category A Mobile Power Generators in Puerto Rico, but only if the following Category A Conditions are satisfied.

Category A Mobile Power Generators include only those which satisfy exhaust emissions standards that are similar to the currently applicable EPA standards set by 40 C.F.R. Parts 1039, 1048, or 1054. This includes only those Mobile Power Generators currently legal for sale in Canada and the European Union, as identified in the following table.

Engine Type	Foreign Standards	Power Range	Designated Standard
Diesel-fueled and other compression-ignition engines	Canada	All	Tier 4
	European Union	37 – 56 kW	Stage III B
		56 – 560 kW	Stage IV
	South Korea	0 – 560 kW	Tier 4
Gasoline-fueled and other spark-ignition engines	Canada	<19 kW	Phase 2
	European Union	<56 kW	Stage V

The Category A Conditions are:

1. Each Mobile Power Generator is imported no later than January 31, 2018;
2. Each Mobile Power Generator is sold, leased, donated, or otherwise transferred—and is in fact delivered—to its ultimate purchaser, or the person who places it into service, no later than March 31, 2018;
3. The person committing the prohibited act must report all the following information, as soon as possible but no later than April 30, 2018.

a. name, address, and contact information for the person submitting the report;
b. the serial number, manufacturer, model, model year, and date of manufacture for each Mobile Power Generator;
c. the emission standards (stated in the terms of the table above) to which each Mobile Power Generator is manufactured;
d. if applicable, a picture of the label (or a representative picture or drawing of the label) on each Mobile Power Generator stating the emission standards (stated in the terms of the table above) to which it is manufactured;
e. the date of importation, the importer of record, the entry number for the importation; and
f. a description (including name, address and contact information) of who received each Mobile Power Generator, and the nature of the transaction (e.g., donation, sale, lease).

Category B: Mobile Power Generators that do not meet current EPA standards

The EPA will exercise its discretion not to pursue enforcement for the import and lease or donation (to the Commonwealth of Puerto Rico or a nonprofit organization for use in matters of public health or safety in Puerto Rico) of the following Category B Mobile Power Generators in Puerto Rico, but only if the following Category B Conditions are satisfied.

Category B Mobile Power Generators are all Mobile Power Generators, as defined above, regardless of emission performance and regulatory status.

The Category B Conditions are:

1. Each Mobile Power Generator is imported no later than January 31, 2018;
2. Each Mobile Power Generator is removed from service and not operated whatsoever in Puerto Rico, after March 31, 2018.
3. Except in the case of donated units, each Mobile Power Generator is exported from Puerto Rico, or destroyed, no later than April 30, 2018.
4. Each Mobile Power Generator is placed into service only by the person who owns it, or pursuant to a lease or similar time-limited transfer of possession, or by the entity to whom it was donated;
5. No Mobile Power Generator is ever sold, or otherwise has its title or ownership transferred in Puerto Rico. However, Mobile Power Generators may be donated to the Commonwealth of Puerto Rico or a nonprofit organization for use in matters of public health or safety, but in the case of any such donation, the recipient must not sell or lease the units in Puerto Rico;
6. The person committing the prohibited act must report all the following information, as soon as possible but no later than May 31, 2018. Where that person donates the Mobile Power Generator, the report must include the following information insofar as it is available.
    a. name, address, and contact information for the person submitting the report;
    b. the serial number, manufacturer, model, model year, and date of manufacture for each Mobile Power Generator;

c. the emission standards to which each Mobile Power Generator is manufactured;
d. if applicable, a picture of the label (or a representative picture or drawing of the label) on each Mobile Power Generator stating the emission standards to which it is manufactured;
e. the date of importation, the importer of record, the entry number for the importation;
f. the date of destruction or exportation from Puerto Rico, the exporter of record, and destination for each Mobile Power Generator;
g. a description of who (including name, address and contact information) leased or used (or both) each Mobile Power Generator, or to whom it was donated; and
h. a description of where and how each Mobile Power Generator was used, including total hours of operation and the type of fuel used.

7. Recipients of donated Mobile Power Generators, as described above, must report as soon as possible but no later than May 31, 2018, that the units have been have been taken out of service in Puerto Rico, and a statement of how such units will be permanently taken out of service in Puerto Rico (e.g., exportation or destruction).

The reports referenced above must be sent by email to Mario Jorquera, Senior Engineer within EPA's Air Enforcement Division, at jorquera.mario@epa.gov. All reports must be presented as a singular file in portable document format (PDF), and be clearly labeled as "Report for Category [A or B, as applicable] Mobile Power Generators Pursuant to EPA's No Action Assurance for Hurricane Relief in Puerto Rico." Where the information for these reports is not available due to the emergency circumstances, the EPA would accept instead an explanation of those circumstances and specifically how they prevented the collection or transmission of that information. In addition to the information specified above, each report must include the following statement, as signed by the person who committed the prohibited act or a responsible corporate officer:

> I certify under penalty of law that I have examined and am familiar with the information in the enclosed report. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to Section 113(c)(2) of the Act, 42 U.S.C. § 7413(c)(2), and 18 U.S.C. § 1001 and 1341.

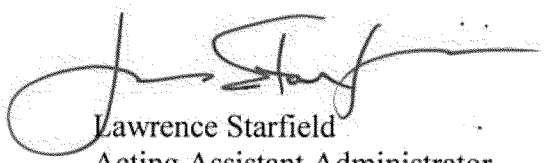
EPA will work with Customs and Border Protection personnel on any importation questions arising in connection with this NAA. The EPA reserves the right to extend, revoke or modify the NAA if the EPA believes that such action is necessary to protect public health and the environment. This NAA does not apply to any other federal requirements that may apply to Mobile Power Generation other than the prohibition on importing and introducing the generators in to

commerce without the requisite label at 40 C.F.R. § 1068.101(a)(1). Nothing in this NAA is intended to override state or local authorities. Nothing in this exercise of enforcement discretion relieves any person from other obligations under law, if any, concerning these generators.

This NAA does not expire on a particular date because Category A engines should have no unlawful emission impacts and Category B engines are already required to be exported or destroyed by April 30, 2018.

Please contact Evan Belser, Chief, Vehicle and Engine Enforcement Branch, with questions and information that may inform the EPA as it considers future similar actions that may best serve the public interest. Mr. Belser can be reached at (202) 564-6850 or belser.evan@epa.gov.

Sincerely,



Lawrence Starfield
Acting Assistant Administrator

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To: Bailey, Ethel[Bailey.Ethel@epa.gov]
From: Bodine, Susan
Sent: Tue 9/19/2017 10:30:20 PM
Subject: FW: OIG Report: "Eleven Years After Agreement, EPA Has Not Developed Reliable Emission Estimation Methods to Determine Whether Animal Feeding Operations Comply With Clean Air Act and Other Statutes"
_epaoig_20170919-17-P-0396_cert.pdf

Can you print a copy for me (double sided)

From: Starfield, Lawrence
Sent: Tuesday, September 19, 2017 5:57 PM
To: Bodine, Susan <bodine.susan@epa.gov>
Subject: FW: OIG Report: "Eleven Years After Agreement, EPA Has Not Developed Reliable Emission Estimation Methods to Determine Whether Animal Feeding Operations Comply With Clean Air Act and Other Statutes"

FYI. I haven't had a chance to read this yet.

Larry

From: OIG News
Sent: Tuesday, September 19, 2017 1:31 PM
To: Dunham, Sarah <Dunham.Sarah@epa.gov>; Starfield, Lawrence <Starfield.Lawrence@epa.gov>
Cc: Pruitt, Scott <Pruitt.Scott@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>; Darwin, Henry <darwin.henry@epa.gov>; Chmielewski, Kevin <chmielewski.kevin@epa.gov>; Bloom, David <Bloom.David@epa.gov>; Trent, Bobbie <Trent.Bobbie@epa.gov>; Anthony, Sherri <Anthony.Sherri@epa.gov>; Howard, MarkT <Howard.Markt@epa.gov>; Minoli, Kevin <Minoli.Kevin@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Valentine, Julia <Valentine.Julia@epa.gov>; Threet, Derek <Threet.Derek@epa.gov>; Shaw, Betsy <Shaw.Betsy@epa.gov>; Cozad, David <Cozad.David@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>; Spriggs, Gwendolyn <Spriggs.Gwendolyn@epa.gov>; Vincent, Marc <Vincent.Marc@epa.gov>
Subject: OIG Report: "Eleven Years After Agreement, EPA Has Not Developed Reliable Emission Estimation Methods to Determine Whether Animal Feeding Operations Comply With Clean Air Act and Other Statutes"

Attached is the EPA Office of Inspector General (OIG) report, *Eleven Years After Agreement, EPA Has Not Developed Reliable Emission Estimation Methods to Determine Whether Animal Feeding Operations Comply With Clean Air Act and Other Statutes* (Report No. 17-P-0396). This report will be available to the public on the OIG's website at www.epa.gov/oig.

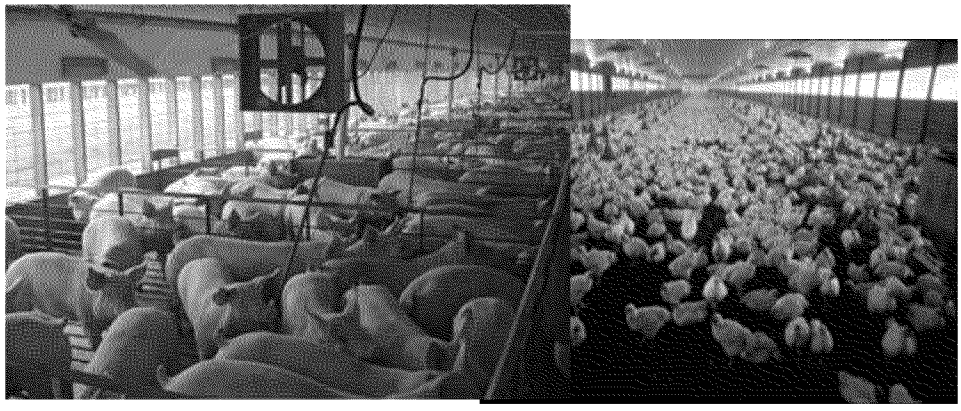
U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF INSPECTOR GENERAL

Improving air quality

Eleven Years After Agreement, EPA Has Not Developed Reliable Emission Estimation Methods to Determine Whether Animal Feeding Operations Comply With Clean Air Act and Other Statutes

Report No. 17-P-0396 **September 19, 2017**



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Report Contributors:

Richard Jones
Erica Hauck
Jim Hatfield
Kevin Good
Julie Narimatsu

Abbreviations

AFO	Animal Feeding Operation
CAA	Clean Air Act
CAFO	Concentrated Animal Feeding Operation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DQO	Data Quality Objective
EEM	Emissions Estimating Methodology
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
GAO	U.S. Government Accountability Office
NAEMS	National Air Emissions Monitoring Study
NAS	National Academy of Sciences
OAQPS	Office of Air Quality Planning and Standards
OIG	Office of Inspector General
PM	Particulate Matter
SAB	Science Advisory Board
USDA	U.S. Department of Agriculture
VOC	Volatile Organic Compound

Cover photos: Hogs (left) and chickens (right) in confined spaces at animal feeding operations. (EPA photos)

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U.S. Environmental Protection Agency
Office of Inspector General

17-P-0396
September 19, 2017

At a Glance

Why We Did This Review

We conducted this review to determine what actions the U.S. Environmental Protection Agency (EPA) has taken to evaluate air emissions from animal feeding operations.

The EPA estimates there are about 18,000 large animal feeding operations nationwide, which can potentially emit air pollutants in high-enough quantities to subject these facilities to Clean Air Act and other statutory requirements. A lack of reliable methods for estimating these emissions prevented the EPA and state and local agencies from determining whether these operations are subject to statutory requirements.

In 2005, the EPA and the animal feeding operations industry entered into a compliance agreement to address this challenge. As part of this agreement, the industry agreed to fund an air emissions monitoring study that the EPA would use to develop improved emission estimating methodologies for the industry.

This report addresses the following:

- *Improving air quality.*

Send all inquiries to our public affairs office at (202) 566-2391 or visit www.epa.gov/oig.

Listing of OIG reports.

Eleven Years After Agreement, EPA Has Not Developed Reliable Emission Estimation Methods to Determine Whether Animal Feeding Operations Comply With Clean Air Act and Other Statutes

What We Found

Until the EPA develops sound methods to estimate emissions, the agency cannot reliably determine whether animal feeding operations comply with applicable Clean Air Act requirements.

The industry-funded National Air Emissions Monitoring Study (NAEMS) and the EPA's analyses of the study's results comprised the agency's primary actions to evaluate air emissions from animal feeding operations over the past decade. The NAEMS monitoring was completed more than 7 years ago at a cost of about $15 million, but the EPA had not finalized any emission estimating methodologies for animal feeding operations. In addition, the EPA had only drafted methodologies for about one-fourth of the emission source and pollutant combinations studied in the NAEMS. The EPA expected to develop and begin publishing emission estimating methodologies by 2009, so the methodologies could be used by the EPA, state and local agencies, and industry operators to determine the applicability of Clean Air Act and other statutory requirements.

Delays in developing the emission estimating methodologies stemmed from limitations with NAEMS data, uncertainty about how to address significant feedback from the EPA's Science Advisory Board, and a lack of EPA agricultural air expertise and committed resources. The EPA had not finalized its work plan or established timeframes to finish the methodologies. As a result, the applicability of requirements to control emissions from individual animal feeding operations remained undetermined, enforcement protections for consent agreement participants remained in effect longer than anticipated, and a number of agency actions on animal feeding operation emissions continued to be on hold. Further, because the EPA had not conducted systematic planning, the agency was at risk of developing emission estimating methodologies that cannot be widely applied to animal feeding operations.

Recommendations and Planned Corrective Actions

We recommend that the EPA conduct systematic planning for future development of emission estimating methodologies. Based on the results of this planning, the EPA should determine whether it can develop emission estimating methodologies of appropriate quality for each of the emission source and pollutant combinations studied. If the EPA determines that it cannot develop certain emission estimating methodologies, it should notify agreement participants and end civil enforcement protections. For the emission estimating methodologies that can be developed, the EPA should establish public milestones for issuing the draft methodologies. The EPA agreed with our recommendations, and we accepted the agency's planned corrective actions.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

September 19, 2017

MEMORANDUM

SUBJECT: Eleven Years After Agreement, EPA Has Not Developed Reliable Emission Estimation Methods to Determine Whether Animal Feeding Operations Comply With Clean Air Act and Other Statutes
Report No. 17-P-0396

FROM: Arthur A. Elkins Jr.

TO: Sarah Dunham, Acting Assistant Administrator
Office of Air and Radiation

Lawrence Starfield, Acting Assistant Administrator
Office of Enforcement and Compliance Assurance

This is our report on the subject evaluation conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). The project number for this evaluation was OPE-FY16-0018. This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

Action Required

In accordance with EPA Manual 2750, your office provided planned corrective actions in response to the OIG recommendations. We consider the planned corrective actions for all recommendations to be acceptable. Therefore, you are not required to provide a written response to this final report. The OIG may make periodic inquiries on your progress in implementing these corrective actions. Please update the EPA's Management Audit Tracking System as you complete planned corrective actions.

We will post this report to our website at www.epa.gov/oig.

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Chapters

- continued -

Appendices

Chapter 1
Introduction

Purpose

We conducted this evaluation to determine what actions the U.S. Environmental Protection Agency (EPA) has taken to evaluate air emissions from animal feeding operations (AFOs), including the status of the National Air Emissions Monitoring Study (NAEMS).

Background

AFOs are agriculture operations where animals are kept and raised in confined areas. The U.S. Department of Agriculture (USDA) has estimated that there are about 450,000 AFOs nationwide. While the majority of these are small operations with fewer than 300 animals, the EPA has estimated there are more than 18,000 large AFOs[1] that may raise thousands of animals. For more than two decades, movements to improve profitability within the agriculture industry have resulted in larger AFO facilities that often are geographically concentrated. As facility size has increased and greater numbers of animals are housed in confined spaces, concerns have arisen regarding these facilities' impacts on the environment and public health.

The EPA regulates certain larger AFOs under the Clean Water Act's National Pollutant Discharge Elimination System permit program, which regulates the discharge of pollutants to the waters of the United States. AFO air emissions are not regulated by any AFO-specific standards under the Clean Air Act (CAA), but AFOs that emit air pollutants in sufficient quantities can trigger CAA permit requirements. In the late 1990s, the EPA recognized that it did not have sufficient AFO air emissions data to develop reliable emission estimating methodologies (EEMs) for determining whether individual AFOs are subject to CAA permit requirements or emission reporting requirements under two other statutes: the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Emergency Planning and Community Right-to-Know Act (EPCRA).[2] Both CAA permitting requirements and CERCLA/EPCRA release

[1] EPA water regulations define AFOs and a subset of larger AFOs called concentrated animal feeding operations (CAFOs), and the Clean Water Act includes CAFOs as a type of point source. The CAA does not define or reference these terms, and the EPA's Office of Air and Radiation does not distinguish between an AFO and a CAFO. Thus, we use the term "AFO" throughout our report, even when referring to a facility that would meet the definition of a CAFO under the Clean Water Act.

[2] EPCRA and CERCLA require facilities to report emissions of certain hazardous substances if they are released in quantities at or above certain thresholds. This includes two hazardous substances commonly released by AFOs: ammonia and hydrogen sulfide.

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reporting requirements are triggered only if a facility emits certain pollutants at or above specific regulatory thresholds.

The agency began discussions with representatives of the AFO industry in 2001 to address uncertainty in determining the applicability of statutory requirements for air emissions. As a result, the EPA and certain sectors of the AFO industry[3] (e.g., pork and broiler producers, egg layers, and dairy) negotiated a consent agreement, which was published in 2005[4] and entered into by AFO owners/operators who elected to participate. Under this agreement, participating AFO owners/operators agreed to pay a civil penalty, comply with all applicable requirements of the agreement, and participate (if selected) in a national monitoring study. The AFO sectors agreed to fund the monitoring study to provide data the EPA would use to develop EEMs for various AFO pollutants and emission sources.

Air Emissions From AFOs

AFOs can release several pollutants, including but not limited to: ammonia, hydrogen sulfide, particulate matter (PM), volatile organic compounds (VOCs) and hazardous air pollutants. AFO air emissions come from lagoons, barns and other structures, and manure spread on fields. Table 1 lists the key pollutants emitted from AFOs, along with their common emission sources and associated health and air quality effects.

Table 1: Emission sources and health effects of key pollutants from AFOs

Pollutant	Common emission sources	Health and air quality effects
Ammonia (NH_3)	Decomposition of animal manure.	Can cause severe cough and chronic lung disease. It also contributes directly to the formation of $PM_{2.5}$, and deposition can impact sensitive ecosystems.
Volatile organic compounds (VOCs)	Animal feed and waste.	Can cause eye, nose and throat irritation; damage to liver, kidney and central nervous system; and cancer. VOCs also contribute to the formation of ground-level ozone.
Particulate matter (PM)*	Dry manure, bedding and feed materials, and dirt feed lots.	Exposure is linked to a variety of problems, including decreased lung function, increased respiratory symptoms, and premature death in people with heart or lung disease.
Hydrogen Sulfide (H_2S)	Decomposition of animal manure stored in wet conditions such as lagoons.	Can cause eye and respiratory irritation at lower concentrations. At higher concentrations, paralysis of the respiratory center can lead to rapid death. Excess emissions can contribute to the formation of $PM_{2.5}$ and acid rain.

Source: EPA Office of Inspector General (OIG) analysis.

* PM includes both fine particles ($PM_{2.5}$,) and coarser particles (PM_{10}).

[3] According to the EPA, state and local agencies, and an environmental organization also participated in initial discussions on the agreement.

[4] Animal Feeding Operations Consent Agreement and Final Order, 70 Fed. Reg. 4958-4977 (Jan. 31, 2005).

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AFOs can be located near residences, and some communities have multiple AFOs nearby. For example, several counties in eastern North Carolina have the highest concentration of swine AFOs in the United States. Some studies have raised concerns that lower-income and minority communities are disproportionately impacted by air emissions from AFOs. Studies conducted in North Carolina found that residents living near swine AFOs were disproportionately low-income people of color. Air pollution from these AFOs is associated with the potential health impacts listed in Table 1 above, as well as a reduced quality of life due to persistent odors[5] and declining property values.[6]

Highlights from external studies on impacts from AFO air emissions:

- **Residential property values were reduced by an average of almost 23 percent within 1.25 miles of a large swine AFO.[a]**
- **The closer children go to school near a large AFO, the greater the risk of asthma symptoms.[b]**
- **Living in close proximity to large swine AFOs may result in impaired mental health and negative mood states, such as tension, depression or anger.[c, d]**

[a] Simons, R.A. et al., 2014. The Effect of a Large Hog Barn Operation on Residential Sales Prices in Marshall County, KY. JOSRE. 6(1).
[b] Mirabelli, M. C. et al., 2006. Asthma Symptoms Among Adolescents Who Attend Public Schools That Are Located Near Confined Swine Feeding Operations. Pediatrics. 118;66-75.
[C] Bullers, S., 2005. Environmental Stressors, Perceived Control, and Health: The Case of Residents Near Large-Scale Hog Farms in Eastern North Carolina. Human Ecology. 33(1).
[d] Schiffman, S. S. et al., 1995. The Effect of Environmental Odors Emanating From Commercial Swine Operations on the Mood of Nearby Residents. Brain Research Bulletin. 37(4): 369-375.

Characterizing air emissions from AFOs is difficult due to a number of factors. AFOs can have many and varied sources of air emissions, including barns, houses, feedlots, pits, lagoons, basins and manure spray fields. Each of these emission sources can emit a variety of air pollutants, and emission rates can fluctuate depending on climate and geographical conditions, among other factors. Further, characterizing AFO air emissions requires expertise in multiple scientific disciplines, including animal nutrition, AFO practices and atmospheric chemistry.

The EPA and the USDA have been collaborating on a manual of voluntary best management practices to provide AFO owner/operators and state and local governments with options to reduce AFO air emissions. The manual contains best management practices for reducing particulate matter, ammonia, hydrogen sulfide, and other air emissions through various aspects of AFO management, including feed management, manure management, land application, and other areas. The EPA plans to publish the manual before the end of 2017, pending agency administration approval.

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[5] Odors are not regulated by the EPA, but may be addressed under some state and local laws.
[6] Simons, R.A. et al., 2014. The Effect of a Large Hog Barn Operation on Residential Sales Prices in Marshall County, KY. JOSRE. 6(1).
Kim, J. et al., 2009. A Spatial Hedonic Approach to Assess the Impact of Swine Production on Residential Property Values. Environ Resource Econ. 42: 509-534.

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National Academy of Sciences Report on AFO Air Emissions

In 2001, the EPA and USDA jointly requested that the National Academy of Sciences (NAS) evaluate the body of scientific information used for estimating various kinds of air emissions from AFOs. In 2003, the NAS reported[7] that accurate emissions estimates were needed to determine AFOs' potential impacts and to assess the implementation of measures to control emissions. The NAS also reported that the EPA had not dedicated the necessary resources to estimate AFO air emissions, and that the agency's approach to estimating emissions was inadequate. That approach involved deriving emission factors from published emissions data, as well as gathering emission factors from existing literature. These emission factors were then applied to representative farms to estimate annual mass emissions. The NAS reported that this approach did not account for the variability among AFOs (e.g., differences in geography and climate) and thus cannot adequately estimate air emissions from an individual AFO.

The NAS recommended that the EPA develop a "process-based" approach to estimate AFO air emissions. The NAS favored such an approach for most types of emissions as the primary focus for both short- and long-term research,[8] but also stated that short-term research should focus on providing "defensible estimates of air emissions that could be used to support responsible regulation."[9] The NAS described process-based models as mathematical models "that describe the movement of various substances of interest at each major stage of the process of producing livestock products: movement into the next stage, movement in various forms to the environment, and ultimately movement into products used by humans."[10]

Air Compliance Agreement With AFO Industries

In 2002, spurred in part by uncertainty about emission levels from AFOs and concerns about applicability of CAA requirements, representatives of the pork, egg producers, and other AFO sectors proposed a plan to EPA officials to produce air emissions monitoring data from AFOs. Negotiations between the EPA and AFO sectors[11] lasted for more than 2 years before an agreement was finalized in 2005. As a condition of the 2005 Air Compliance Agreement (henceforth, the "Agreement"), the industry agreed to fund a large-scale emissions monitoring study. The EPA was to use the emissions monitoring data to develop EEMs that

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[7] *Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs*, NAS National Research Council (2003).
[8] 2003 NAS report, pp. 152-153.
[9] 2003 NAS report, p. 25.
[10] 2003 NAS report, p. 9.
[11] Participating AFO sectors included egg layers, broiler chickens, dairy cattle and swine. The turkey sector was a part of the negotiations as well, but not enough turkey AFO owners/operators signed up to fund monitoring. The Agreement did not cover beef cattle.

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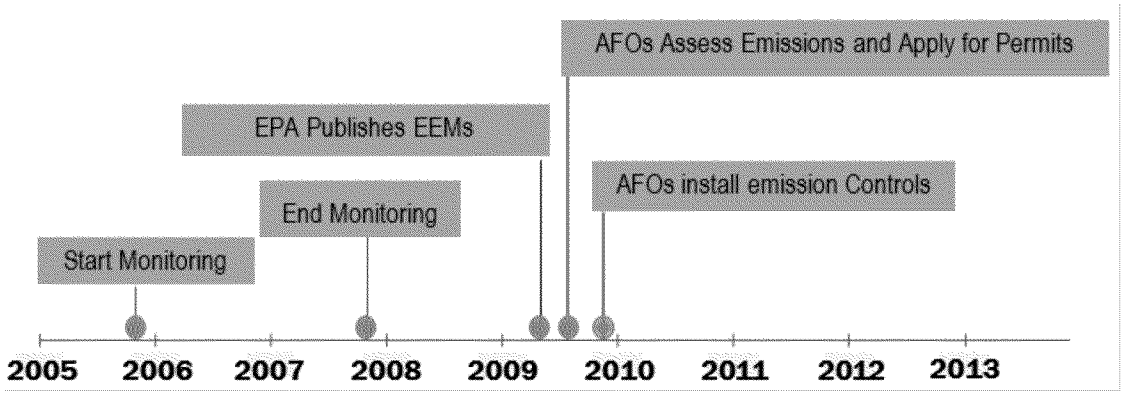
AFOs could apply to estimate their emissions and determine the applicability of CAA permitting and CERCLA/EPCRA release reporting requirements. Once a facility applied the EEMs to determine its emissions, the facility was to submit all required CAA permit applications and/or report any hazardous substance releases requiring notice under CERCLA/EPCRA.[12]

The Federal Register Notice (henceforth, the "Notice") that published the Agreement included the EPA's expectation that the emissions monitoring study would begin in 2005 and last 2 years. The Notice also described the EPA's expected timeframes for completing the tasks subsequent to the study. Based on these original expectations, the EPA would begin publishing final EEMs in 2009, and AFOs would have obtained any necessary permits and installed emission controls by 2010. Figure 1 shows the timing for these different activities.

Figure 1: Expected timeframes for monitoring study and EEM development



Source: OIG analysis of the Notice publishing the Agreement. 70 Fed. Reg. 4958-4977 (Jan. 31, 2005).

[12] In a 2008 rule, the EPA exempted from CERCLA Section 103 reporting requirements all releases of hazardous substances to the air from animal waste at AFOs. The rule also exempted such releases from EPCRA Section 304 reporting requirements, except when AFOs confine a number of animals at or above the large CAFO threshold, as defined under Clean Water Act regulations. However, on April 11, 2017, the U.S. Court of Appeals for the District of Columbia Circuit ruled in favor of a group of environmental organizations that challenged the exemption and ordered that the 2008 rule be vacated (*Waterkeeper Alliance et al. v. EPA*). On July 17, 2017, the EPA filed a motion requesting the Court grant a stay of the ruling for six months to allow the EPA time to develop guidance for farms on reporting requirements. On August 16, 2017, the Court ordered a stay of the ruling through November 14, 2017. The EPA has 75 days from August 16, 2017, to request an extension of the stay if needed.

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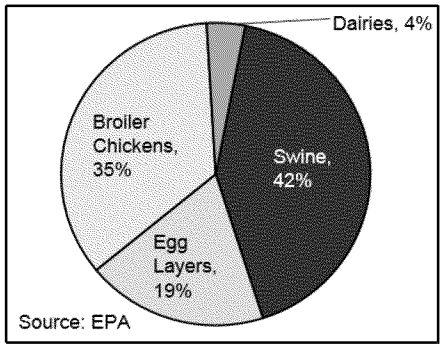
Primary provisions for AFOs participating in the Air Compliance Agreement include:

- **Pay up to $2,500 per farm to fund a 2-year emissions study.**
- **Agree to make their property available for emissions monitoring if selected as a monitoring site for the study.**
- **Pay a civil penalty ranging from $200 to $1,000, depending on the size and number of AFOs covered by the participant's Air Compliance Agreement.**
- **Receive protection from enforcement actions for civil violations of the CAA, CERCLA and EPCRA, to last until either (1) the EPA finalizes EEMs, or (2) the EPA notifies the facility that it was unable to finalize EEMs.**

Under the Agreement, participating AFOs were granted a release and covenant not to sue for potential CAA, CERCLA and EPCRA violations alleged in the Agreement (henceforth, "civil enforcement protections") until the EEMs are developed and AFOs apply for applicable CAA permits and report qualifying releases under CERCLA and EPCRA, or the EPA determines it cannot develop EEMs and notifies Agreement participants accordingly.

The EPA entered into 2,568 separate agreements with AFO owners and operators, which covered about 13,900 AFOs in 42 states. According to the EPA, these 13,900 AFOs comprise more than 90 percent of the largest AFOs in the United States. Figure 2 illustrates the percentage of all Agreement participants by type of animal raised.

Figure 2: Agreement participants by type of animal raised



Monitoring Study Methodology

About $15 million was collected from the AFO sectors participating in the Agreement to fund the NAEMS emissions study. The NAEMS protocol provided the framework for the field sampling plan, and was developed through a collaborative effort of industry experts, university scientists, EPA and other government scientists, and other stakeholders knowledgeable in the field. The Agricultural Air Research Council—a nonprofit organization established by industry—was responsible for managing and disbursing funds for the study.

The Agricultural Air Research Council was also responsible for selecting a Science Advisor to develop a detailed study design and quality assurance plan, and to oversee the emissions monitoring work, including work conducted by the contracted principal investigators. The principal investigators—most of whom were researchers at land grant universities with expertise in animal agriculture and/or emissions measurement—carried out the monitoring at selected sites. EPA staff did not collect monitoring data, but conducted audits at monitoring sites to ensure that proper techniques and protocols were followed.

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Monitoring was conducted at 27 total sites (i.e., specific sources of emissions such as a barn or a lagoon).[13] Measurements of ammonia, particulate matter (PM_{10} and $PM_{2.5}$),[14] total suspended particulates, VOCs, hydrogen sulfide, and carbon dioxide[15] were taken at broiler chicken, egg layer, swine, and dairy confinement sites (e.g., houses and barns). Measurements of ammonia, hydrogen sulfide, and VOCs were taken at swine and dairy open-source sites (e.g., lagoons and basins). Figure 3 shows the location of monitoring sites across the country.

Figure 3: NAEMS monitoring site locations

Source: OIG analysis of NAEMS site reports.

Other types of measurements were also taken at monitoring sites to help characterize emissions. These measurements included meteorological data (such as temperature and wind speed), and information on the number of animals at AFO monitoring locations, how the animals were housed, and how their waste was managed. The Agreement stated that the EPA would use data from the NAEMS and any other relevant data to develop EEMs.

[13] The 27 monitoring sites were located at 23 AFOs. Monitoring was conducted at two sites (emission sources) for four of the 23 participating AFOs.
[14] PM_{10} describes inhalable particles with diameters that are generally 10 micrometers and smaller. $PM_{2.5}$ describes fine inhalable particles with diameters that are generally 2.5 micrometers and smaller.
[15] While carbon dioxide was measured at confinement sites as part of the NAEMS, the EPA never intended to create EEMs for carbon dioxide emissions.

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Responsible Offices

The EPA office primarily responsible for development of the Agreement was the Office of Enforcement and Compliance Assurance. The EPA office responsible for developing EEMs from the NAEMS data is the Office of Air Quality Planning and Standards within the EPA's Office of Air and Radiation, while the Office of Research and Development plays a supporting role.

Scope and Methodology

We conducted our performance audit from April 2016 through May 2017, in accordance with generally accepted government auditing standards. Those standards require that we obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

To address our objective, we identified and reviewed applicable statutes, regulations, policies and guidance, including sections of the CAA and the Clean Water Act, CAA permitting requirements and thresholds, and the Agreement and associated monitoring protocol. To help us determine the status of the EPA's NAEMS, as well as other efforts to evaluate AFO air emissions, we obtained and reviewed EPA emission reports and analyses, NAEMS-related reports and studies, an EPA Science Advisory Board (SAB) report, and documents related to EPA legal proceedings.

To determine state efforts to address AFO air emissions, we reviewed state regulations and programs for a selected number of states. We also reviewed petitions requesting that the EPA regulate AFO air emissions, and an administrative complaint alleging discrimination against minorities in North Carolina in permitting AFOs. In addition, we reviewed academic studies and reports to determine AFO air emissions and health impacts, and potential disparate impacts in overburdened communities.

We interviewed EPA staff and managers in the Office of Air Quality Planning and Standards, the Office of Enforcement and Compliance Assurance, the Office of Research and Development, the Office of Civil Rights, the Office of Water, and EPA Region 4 (which covers North Carolina), to gain an understanding of EPA actions to evaluate and address AFO air emissions. We also interviewed the following stakeholders to discuss the Agreement and the history and status of the NAEMS:

- USDA's Natural Resources Conservation Service staff.
- SAB members who reviewed the EPA's draft EEMs.
- An AFO industry advisor.
- AFO academic researchers at Purdue University, North Carolina State University, and University of North Carolina-Chapel Hill.

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In addition, we interviewed organizations (Sierra Club, Food & Water Watch, EarthJustice, Waterkeeper Alliance) that submitted CAA petitions to regulate AFO emissions. We also interviewed organizations that submitted a Title VI administrative complaint (the North Carolina Environmental Justice Network and the Rural Empowerment Association for Community Help) alleging discrimination in AFO permitting in North Carolina.

To assess internal controls, we reviewed EPA policies and guidance on quality assurance, including the following:

- The EPA's Quality Policy.
- The EPA's Procedure for Quality Policy.
- The EPA's *Guidance on Systematic Planning Using the Data Quality Objectives Process*.
- The EPA's Office of Air Quality Planning and Standards' Quality Management Plan.

We also reviewed the quality assurance project plans developed for the NAEMS and early draft EEM development.

Prior Report

In September 2008, the U.S. Government Accountability Office (GAO) issued a report on AFOs titled *Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern* (GAO-08-944). GAO reported that the EPA did not have the data needed to effectively regulate CAFO air emissions; specifically, the EPA lacked data on air emission from CAFOs, which the EPA is trying to address through the NAEMS. GAO found that the EPA lacked consistent and accurate data for CAFOs regulated under the Clean Water Act, and that such data—like the locations of the CAFOs—could assist with an assessment of CAFO air emissions. GAO reported that two, then-recent decisions by the EPA suggest that the agency had not yet determined how it intended to regulate air emissions from CAFOs:

- The EPA proposed to exempt releases to the air of hazardous substances from farm manure from both CERCLA and EPCRA notification requirements.

- The EPA stated it will not make key regulatory decisions on how federal air regulations apply to CAFOs until after the NAEMS is completed.

GAO recommended that the EPA (1) reassess the data collection efforts of the NAEMS, and (2) establish a strategy and timetable for developing process-based emission estimating protocols for CAFOs. GAO determined that the EPA has implemented the first recommendation but has not completed the second one.

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Chapter 2
EPA Plans for Finalizing EEMs Were Not Accomplished and Potential Air Quality Impacts Continue

The EPA had not published any final EEMs for AFOs, and had not finalized its workplan or established timeframes for completing them. Moreover, progress had been limited since 2013, when the EPA's SAB concluded that draft EEMs developed by the EPA should not be applied on a national scale as intended, and made several recommendations to improve the EPA's statistical analyses. At the time of the Agreement in 2005, the EPA expected that it would begin publishing final EEMs in 2009. Further, the EPA expected that by 2010 the AFO industry would have used the EEMs to assess their emissions, apply for any applicable CAA permits, and install any necessary emission reduction controls.

The EPA collaborated with a committee of external stakeholders to develop a protocol they believed would provide sufficient, representative data for the EPA's EEM development efforts. However, public comments submitted to the EPA on the planned NAEMS protocol, and the 2008 GAO report, questioned whether the NAEMS would provide enough data to produce scientifically and statistically valid EEMs. As a result of the delays, individual AFOs have not applied EEMs to determine whether their air emissions were significant enough to require CAA permits and related emissions controls, while civil enforcement protections for Agreement participants remained in effect.

Development of EEMs Is Years Behind Schedule

Based on the original expectations for completion of the tasks in the Notice, the NAEMS monitoring would have been completed in 2007, and the EPA would have begun publishing EEMs in 2009. By 2010 all facilities would have done the following:

1. Applied the EEMs to determine whether they met or exceeded CAA permitting and/or CERCLA/EPCRA release reporting thresholds, and whether permitting and reporting were required.

2. Submitted any required CAA permit applications and CERCLA/EPCRA release notifications.

3. Implemented the mitigation and emission control requirements described in their permits. At this point, the protections from civil enforcement actions under the Agreement would have ended for participating AFOs.

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However, EPA staff told us that this timeline did not account for time required for the EPA's Environmental Appeals Board to approve individual agreements, which took longer than anticipated and was not completed until December 2006. Further, it did not account for monitoring that occurred on a rolling basis, and thus took more than 2 years to complete.

The NAEMS monitoring was completed in early 2010, about 2 years later than originally expected. The EPA began developing draft EEMs after monitoring was completed. In 2012, the EPA placed its draft EEMs on its public website for public comment. Draft EEMs covered eight[16] of the 36[17] emission source and pollutant combinations described in the Agreement. The EPA's Office of Air and Radiation also submitted the draft EEMs to the SAB to obtain feedback on EEM development and related questions. The SAB conducted its review of draft EEMs in 2012 and issued its final report[18] on April 19, 2013.

At the time we finished our review in May 2017, the EPA had not finalized any draft EEMs, or developed any additional draft EEMs. According to the 2005 Agreement, the EPA expected to begin publishing final EEMs within 18 months after completion of the NAEMS monitoring.

Figure 4 shows a timeline of expected and actual NAEMS and EEM development activities up to the 2013 SAB final report.

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[16] These included EEMs to estimate six different types of emissions from broiler chicken houses, and EEMs to estimate ammonia emissions from dairy and swine lagoons/basins. Also, see Table 2.
[17] According to the Office of Air and Radiation, the number of EEMs that will ultimately be developed will be influenced by factors such as differences in production, management and building conditions, as well as availability of sufficient data.
[18] *SAB Review of Emissions-Estimating Methodologies for Broiler Animal Feeding Operations and for Lagoons and Basins at Swine and Dairy Animal Feeding Operations*, EPA-SAB-13-003 (2013).

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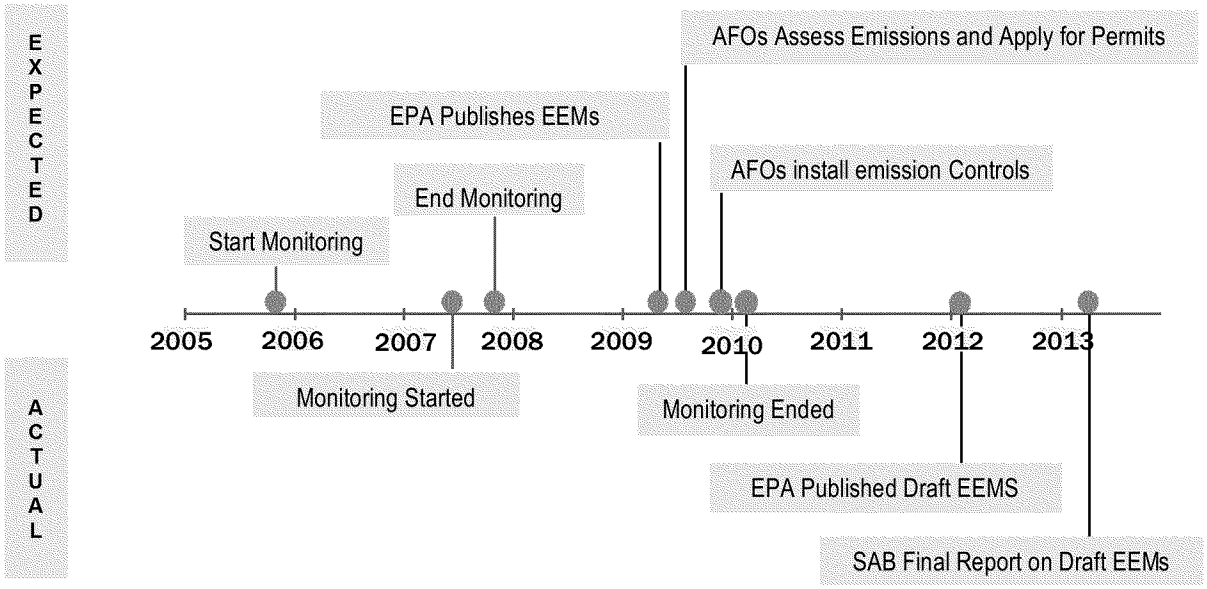
Figure 4: Expected and actual NAEMS/EEM development timeline



Source: OIG analysis of EPA documents.

Responding to SAB Concerns and a Lack of Resources Slowed Development of EEMs

The SAB identified several concerns with the draft EEMs, and the Office of Air and Radiation did not agree with some of the concerns. Since that time, EEM development slowed considerably, as the EPA decided how to address the SAB's concerns. The EPA also encountered resource constraints and a lack of available technical expertise.

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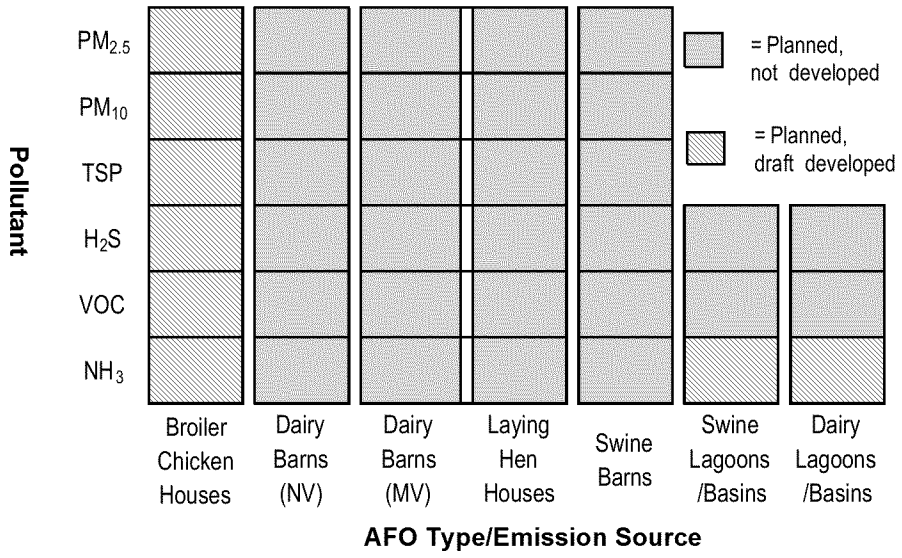
Table 2 shows all emission source and pollutant combinations from the Agreement,[19] and the draft EEMs that were developed and submitted to the SAB for review.

Table 2: Status of EEM development



Source: OIG analysis.

$PM_{2.5}$:	Particulate matter < 2.5 micrometers	H_2S:	Hydrogen Sulfide
PM_{10}:	Particulate matter < 10 micrometers	VOC:	Volatile organic compounds
TSP:	Total suspended particulates	NH_3:	Ammonia

SAB Review of Draft EEMs and EPA Response

The SAB concluded that the data and methodology used to develop the draft EEMs limited the ability of the models to estimate emissions beyond the small number of AFOs in the NAEMS data set. Specifically, the SAB concluded that the number of sites monitored was too small relative to the size of the industry; the models were based on variables that did not accurately predict emissions; the EPA should not have combined swine and dairy lagoon/basin data; and there were significant limitations with the VOC data for broiler houses. Thus, the SAB recommended that the EPA not apply the current version of the EEMs beyond the AFOs in the EPA's dataset.

[19] This included EEMs for both naturally ventilated (NV) and mechanically ventilated (MV) dairy barns, as discussed in the Agreement.

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The SAB made a number of other recommendations, including having the EPA do the following:

- Expand its dataset by collecting data from monitoring efforts outside of the NAEMS, and using NAEMS data that were initially excluded due to the EPA's data completeness criteria.
- Not generate an EEM for VOC emissions from broiler operations based on current data limitations.
- Separate swine and dairy lagoon/basin data that had been combined for EEM development.

The SAB also advocated a process-based modeling approach to EEM development. The NAS had advocated a process-based modeling approach to estimating emissions in its 2003 report. Further, in its 2008 report, GAO recommended that the EPA establish a strategy and timetable for developing process-based emission estimating protocols for CAFOs. The SAB noted the following:

> Process-based models would be more likely to be successful in representing a broad range of conditions than the current models because process-based models represent the chemical, biological and physical processes and constraints associated with emissions.

According to the Notice publishing the Agreement, the EPA believed process-based modeling to be a large and complex, multiyear research effort. Therefore, the EPA planned to develop an interim modeling approach, which would be a critical first step to developing a process-based modeling approach. The modeling approach the EPA ultimately selected for the draft EEMs used a statistical software program to analyze the various measurements taken during the NAEMS and identify those variables that predict emissions. The SAB recognized that the EPA may need to apply statistical approaches to assess emissions while it was developing and evaluating process-based models, and thus made recommendations to improve the EPA's chosen approach, as discussed above.

Prior Stakeholder Feedback Questioned the NAEMS Monitoring Approach

The SAB's concerns about the number of monitoring sites being able to support statistically based EEMs was raised in public comments on the Agreement and protocol before the EPA began developing EEMs, and was also raised by GAO in its 2008 report on the EPA's efforts to characterize AFO pollution.

After the NAEMS protocol was made available for public comment in 2005, a number of external groups expressed concerns about the study design and whether it would lead to credible scientific data. Some commenters noted that the number of

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sites was too limited to account for all the differences in types of manure management systems, building types, ventilation rates, feeding practices, animal type/age, animal management practices, geography and climate. The commenters noted that even for the types of AFOs monitored, there may not be a sufficient number of samples to establish statistically valid EEMs. Similarly, in its 2008 report, GAO cautioned that the NAEMS may not supply the data needed for the EPA to develop comprehensive EEMs. Further, the GAO report stated that members of the USDA Agricultural Air Quality Task Force had raised concerns about the quality and quantity of data collected, and had pushed for the EPA to review the first 6 months of monitoring data to determine whether the study needed to be revised to yield more useful information.

According to the NAEMS Science Advisor, the NAEMS protocol could be viewed as a compromise between compliance-minded EPA, budget-minded industry, and publication-minded universities. The protocol developers decided on an approach that focused on collecting a comprehensive set of monitoring data (i.e., 2 years of monitoring many different AFO conditions and parameters) at a smaller number of sites, as opposed to collecting a smaller set of data at more sites. According to the EPA, costs were a factor in this decision because mobilizing and demobilizing equipment and then re-deploying at new sites would have depleted funds that could be used for monitoring. The protocol developers believed the chosen monitoring plan would produce sufficient data for EEM development if the selected monitoring sites represented how the majority of animals are raised in the different AFO sectors.

Although the monitoring protocol was developed as a joint effort of researchers knowledgeable about AFO operations and/or monitoring techniques, there was no comprehensive internal or external assessment to determine the amount of data needed to produce scientifically and statistically sound EEMs that could be extrapolated nationwide. The EPA did not perform such an assessment prior to the NAEMS, in part, because it did not know which variables would most impact air emissions at AFOs, and the agency wanted to see the data before selecting a modeling approach for EEM development. Also, the NAEMS protocol and detailed monitoring plans were not peer reviewed to ensure that the NAEMS would provide sufficient data for the EPA to produce a comprehensive suite of EEMs.

EPA's EEM Development Activities Since 2013 Have Been Limited

The EPA planned to continue EEM development using its statistically based approach, and had addressed some of the SAB's recommendations by acquiring additional data sets from other external studies, and reassessing data completeness criteria for the NAEMS. However, the draft EEMs that were submitted to the SAB for review had not been revised, and the EPA had not begun developing EEMs for the remaining 28 emission source and pollutant combinations.

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A lack of expertise and resources slowed the agency's work on the EEMs in recent years. According to EPA managers, the agency in recent years did not have staff with combined expertise in agricultural emissions, air quality and statistical analysis. At the time the NAEMS protocol was developed, the EPA had more applicable expertise, but the key staff involved in the NAEMS protocol development retired. Further, competing priorities resulted in the EPA's Office of Air and Radiation putting the EEM effort largely on hold. The EPA had dedicated few agency resources to develop EEMs since the SAB's 2013 final report. The few remaining agency staff who worked on the NAEMS and subsequent data analysis were reassigned to other work, and the EPA stopped funding the contract for NAEMS analysis.

The EPA's most recent draft EEM development work plan, dated March 2016, provided a general framework for how the EPA intended to finish all planned EEMs. The draft plan stated that a new staff person with appropriate expertise, along with student contractor support, would complete the EEMs. The EPA hired the new staff person and a student contractor in January 2017 but had not yet finalized timeframes for completing EEM development.

AFO Air Emissions Remain Largely Uncharacterized and Important Agency Actions Are on Hold

Eleven years after the Agreement was entered, and 7 years after NAEMS monitoring was completed, the EPA, state, local and tribal permitting authorities, and AFO owners/operators, did not have scientifically defensible EEMs needed to make CAA and CERCLA/EPCRA compliance determinations. In addition, the civil enforcement protections for the approximately 14,000 AFOs that participated in the Agreement remained in effect more than 6 years after intended expiration, and several important EPA actions were on hold pending development of the EEMs.

CAA Permit and CERCLA/EPCRA Reporting Determinations Have Not Been Made

Per the Agreement, facilities were not required to determine whether CAA permitting and CERCLA/EPCRA reporting requirements apply to them until the EPA publishes final EEMs. However, once final EEMs are published, participating AFOs are required to use the EEMs to estimate their emissions and come into compliance with applicable CAA and CERCLA/EPCRA requirements.

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The Agreement states that a source with emissions exceeding CAA major source permitting thresholds[20] would have to do one of the following:

1. Apply for and obtain a permit that contains a federally enforceable limitation or condition that limits the potential emissions to less than the applicable major source threshold for the area where the source is located.

2. Install either best available control technology in attainment areas,[21] or lowest achievable emission rate technology in nonattainment areas;[22] and then obtain a federally enforceable permit that incorporates the appropriate best available control technology or lowest achievable emission rate limit.

Delays in issuing the EEMs resulted in facilities continuing to have civil enforcement protections even if their emissions were exceeding CAA permit or CERCLA/EPCRA reporting thresholds. Given the lack of reliable EEMs, it was difficult to estimate how many facilities could be exceeding these thresholds. However, monitoring conducted as part of an EPA enforcement case in 2003 demonstrated that some large AFOs can exceed the 250-tons-per-year permitting threshold for PM emissions. That monitoring showed total PM emissions of 550 and 700 tons per year at two large egg-layer AFOs.

The NAEMS Science Advisor analyzed NAEMS data for the pork and egg-layer industries, which indicated that pork and egg-layer AFOs could frequently exceed the EPCRA reporting threshold for ammonia of 100 pounds per day. This analysis indicated that pork and egg layer AFOs were unlikely to exceed 250 tons per year of PM_{10} or VOC emissions. However, the Science Advisor's analysis did not address whether pork or egg-layer AFOs would trigger permitting requirements in poor air quality areas where regulatory thresholds are lower.

Paragraph 38 of the Agreement required the EPA to end civil enforcement protections for those emission sources/types for which the EPA determined it was unable to develop EEMs. As described earlier, the SAB concluded in its 2013 report that the EPA did not have sufficient data to develop an EEM for VOC emissions from broiler houses. Further, more than 7 years since completion of the NAEMS, the EPA had only developed draft EEMs for eight of a possible 36 emission source and pollutant combinations. However, the EPA had not yet determined that it could not develop any of the EEMs, and thus has not waived enforcement protections for any of the emissions sources covered under the 2005 Agreement.

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[20] Applicable regulatory thresholds range from 10 tons per year in areas with very poor air quality (called extreme nonattainment areas) to 250 tons per year in areas with adequate air quality (called attainment areas).
[21] A geographic area is generally designated as being in attainment for a particular criteria air pollutant if the concentration of that pollutant is found to be at or below the regulated or "threshold" level for the associated National Ambient Air Quality Standard.
[22] A geographic area is generally designated as being in nonattainment for a particular criteria air pollutant if the concentration of that pollutant is found to exceed the regulated or "threshold" level for the associated National Ambient Air Quality Standard.

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Agency Actions on Hold

Delays in completing EEMs have also caused important agency efforts to address or mitigate AFO air emissions to remain on hold. The EPA stated it would not take the following actions until the EEMs are finalized because they are needed to inform the agency's decision-making:

Responding to citizen petitions to regulate AFOs. The EPA has received petitions to address AFO emissions in regulations beyond the current permitting CAA provisions, which include a 2009 petition to list and regulate AFOs as a source category under CAA Section 111, and a 2011 petition to regulate ammonia as a criteria pollutant under CAA Sections 108 and 109. EPA staff told us they did not plan to evaluate the need for additional regulations as laid out in these petitions until the EEMs are finalized.

Defining "source" for aggregation purposes. The aggregation of sources pertains to how many individual emission sources are counted together to determine whether a facility exceeds CAA major source status, and thus impacts how many facilities could exceed permitting thresholds. For example, if a barn at an AFO rather than the entire AFO is a "source," fewer AFOs could be impacted by CAA permitting requirements. The EPA had not issued guidance on this issue, and said it planned to do so after developing the EEMs.

In our view, final EEMs are also necessary for the EPA to develop compliance and enforcement strategies for Agreement non-participants, and to assess whether AFO emissions may contribute to disproportionate health risks to certain communities.

Conclusion

The EPA's ability to characterize and address AFO air emissions is unchanged since its 2005 Agreement with the AFO industry intended to produce reliable emissions estimation methods. As a result, individual AFOs have not estimated their emissions to determine whether they are required to implement controls to reduce emissions and/or report their emissions to the appropriate emergency responders. Additionally, other important agency actions pertaining to AFO air emission estimates continue to be on hold.

Timeframes for completing EEM development were uncertain, as staffing and contract support needed to finish EEMs only recently became available and the EPA had not yet finalized its work plan at the time we completed our review. Further, SAB concerns about the EPA's EEM development methodology have not been resolved. Despite these uncertainties, parties to the 2005 Agreement continue to receive protections from civil enforcement actions. We make recommendations in Chapters 3 and 4 of this report.

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Chapter 3
EPA Needs to Implement Systematic Planning to Assure That EEMs Have Sufficient Quality

The EPA's planning for EEM development did not describe the desired level of quality needed for the EEMs' intended purpose of estimating individual AFO air emissions nationwide. The establishment of such criteria is a key component of systematic planning for agency projects. In accordance with the agency's data quality policies, EPA organizations should conduct systematic planning to ensure that projects will result in scientific products that are defensible and useful for their intended purpose. The agency's most recent EEM development draft work plan used the terms "appropriate" and "meaningful" to describe final EEM products, but did not explain how those terms would be used to evaluate the quality or acceptability of the final EEMs.

As noted in Chapter 2, the agency's SAB concluded that the EPA's 2012 draft EEMs were not suitable for their intended purpose. Consequently, if the agency does not fully implement systematic planning for future EEM development, the EPA is at risk of producing additional draft EEMs that are not sufficient for estimating air emissions at individual AFOs across the United States.

EPA Quality System

The EPA's Procedure for its Quality Policy[23] establishes management principles and responsibilities for ensuring that EPA products and services meet agency quality-related requirements, and are of sufficient quality for their intended use and support the EPA's mission to protect human health and the environment. The policy applies to agency products and services developed for external distribution or dissemination. Each EPA organization is responsible for implementing the EPA Quality Policy and Program within its organization. Requirements for implementing the program include conforming to the minimum specifications of the American National Standards Institute and the American Society for Quality Control standard, ANSI/ASQC E4-1994.[24]

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[23] EPA Chief Information Officer's CIO Order 2106-P-01.0 (October 20, 2008).

[24] *Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs,* the American National Standards Institute and the American Society for Quality Control (1994). This standard is the basis for the EPA's Quality System.

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At the project level, these minimum specifications include the following:

- Using a systematic planning approach (e.g., the data quality objectives process) to develop acceptance or performance criteria covered by the EPA Quality Policy.

- Having approved quality assurance project plans, or equivalent documents, for all applicable tasks involving environmental data.

To implement the EPA's Quality Policy, each EPA organization must develop a quality management plan that describes its quality system, documents its quality policies, and identifies the environmental programs to which the quality system applies. The EPA's Office of Air Quality Planning and Standards (OAQPS) developed a quality management plan that describes options for ensuring that OAQPS projects are of appropriate quality for their intended purpose. These options include elements of systematic planning to ensure that quality considerations are built into a product at the beginning, and consist of (1) developing a quality assurance project plan or similar document, and/or (2) conducting pre-dissemination review (e.g., peer review) of information.

According to the OAQPS quality management plan, quality documentation describes in detail the activities that must be implemented to assure that the results of work will satisfy the stated performance criteria. The performance criteria may be stated in the form of data quality objectives (DQOs). DQOs are qualitative or quantitative statements that clarify project technical and quality objectives, define the appropriate type of data, and specify tolerable levels of potential decision errors (e.g., uncertainty) that will be used as the basis for identifying the data needed to support decisions. EPA quality assurance guidance[25] recommends that systematic planning include DQOs when data are to be used to make a regulatory decision or emission estimations.

The DQO process is the agency's recommendation when data are to be used to make some type of decision (e.g., compliance or noncompliance with a standard) or estimation (e.g., ascertain the mean concentration level of a contaminant).

Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4, February 2006

Further, DQOs should be specified for a project before the agency develops its plan for collecting the data, since the DQOs will drive key data collection decisions. For estimation, the guidance states that DQOs are typically expressed in terms of acceptable uncertainty (e.g., width of an uncertainty band or interval) associated with a point estimate at a desired level of statistical confidence.

[25] The EPA's *Guidance on Systematic Planning Using the Data Quality Objectives Process* (2006).

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The OAQPS quality management plan also provides for the pre-dissemination review of OAQPS information as a way to provide assurance that quality has been built into the information that the office disseminates. The quality management plan cites peer review as an example of pre-dissemination review, and notes that it can be appropriate to incorporate the pre-dissemination review for project planning documents, such as the quality assurance project plan, prior to beginning the project.

EPA Has Not Fully Implemented a Systematic Planning Process to Assure a Desired Level of Quality for EEMs

The EPA's planning process for EEM development had yet to establish data quality objectives describing the performance or acceptance criteria for the final EEMs. While extensive planning went into assuring the quality of the monitoring data collected during the NAEMS, this planning did not describe the desired quality of the end products resulting from EPA analysis of the NAEMS data (i.e., the EEMs), or the type and extent of emissions monitoring data needed to produce EEMs of desired quality.

Planning for Draft Development of EEMs Was Not Systematic

Ideally, under a systematic planning process, a methodology for producing a final product at the desired quality is determined up front. This methodology then drives the data collection efforts. When data are to be used to make some type of decision or estimation, the EPA recommends that the desired level of quality be expressed in the form of DQOs. As noted in Chapters 1 and 2, the EPA collaborated with external scientists to develop the monitoring protocol. However, several factors influenced the scope of the NAEMS, and that effort was not specifically designed to produce data to satisfy acceptance criteria for the EEMs. Among these factors was that, prior to the study, the EPA did not know which variables most impact air emissions at AFOs. Thus, the EPA tried to create an EEM development methodology using the data that was available from the NAEMS.

Unless some form of planning is conducted prior to investing the necessary time and resources to collect data, the chances can be unacceptably high that these data will not meet specific project needs.

Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4, February 2006

The NAEMS protocol stated that the NAEMS and subsequent data analyses and interpretation would allow the EPA and livestock and poultry producers to "reasonably determine" which AFOs were subject to CAA regulatory provisions and CERCLA/EPCRA reporting requirements. However, as part of its planning, the EPA did not define what was meant by "reasonably determine." The EPA developed a quality assurance project plan for its efforts to develop the draft EEMs that were published in 2012, but it focused on assessing the quality of incoming data from the NAEMS and other sources. The quality assurance project

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plan did not include DQOs or other performance criteria defining the acceptable level of uncertainty for EEM predictions, or the quality control measures the EPA would use to assure its statistical models were scientifically and statistically sound.

The EPA had its draft EEMs peer reviewed by the SAB, but the agency did not involve the SAB in its planning process to ensure that the NAEMS would provide sufficient data for EEM development. As discussed in Chapter 2, the SAB concluded that the EPA's draft EEMs were not useful for making compliance determinations nationwide due to problems with the underlying data and analysis.

Plans for Completing Development of EEMs Can Be Strengthened

The EPA had not yet conducted systematic planning for the EEM completion effort, but had developed a draft work plan. That draft work plan contained little information about systematic planning to assure the quality of future EEMs. The plan did not address whether a quality assurance project plan would be developed, or commit to peer review of the planned methodology or the draft or final EEMs.[26]

The draft work plan described a future scoping study that would allow the EPA to plan activities and resources for developing "appropriate" EEMs, and stated that EEMs developed in the future would be tested to determine whether they can reproduce "meaningful" emissions estimates. However, the work plan did not define or establish acceptance criteria for "appropriate" or "meaningful" EEMs. Staff from OAQPS stated that they planned to make quality planning decisions once the new staff person had been hired to conduct the scoping study and subsequent EEM development.

Conclusion

As explained in the EPA's quality assurance guidance, systematic planning that defines the level of quality required for an end product should be conducted prior to data collection efforts, to reduce the risk that the data collected is not sufficient. Such planning for the EEMs was not conducted prior to the NAEMS or draft EEM development efforts, in part, because the EPA did not have a full understanding of the factors that influence AFO air emissions. Further, the NAEMS protocol and monitoring plans were not developed exclusively to provide data needed for EEM development. Based on its experience and peer review feedback in developing the initial set of draft EEMs, the EPA should be in a better position to conduct systematic planning for the EEM completion effort.

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[26] In the draft plan, the EPA stated it will provide developed EEMs to "appropriate stakeholders and possibly the Science Advisory Board" for review, and then modify the EEMs based on comments received. However, the plan does not commit to obtaining independent, external peer review of the EEMs or the planned methodology that will be used to develop the EEMs.

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Without adequate systematic planning, the EPA is at risk of spending additional time and resources to develop EEMs that still are not sufficient for estimating AFO emissions nationwide.

Recommendations

We recommend that the Assistant Administrator for Air and Radiation:

1. In accordance with EPA quality assurance guidance, conduct comprehensive systematic planning for future emission estimating methodology development through either the quality assurance project plan or pre-dissemination review processes.

    - If the EPA chooses to develop a quality assurance project plan, it should first develop data quality objectives for the emission estimating methodologies.

    - If the EPA chooses to conduct a pre-dissemination review, it should obtain independent, external feedback on the adequacy of its emission estimating methodologies development and plans prior to beginning the project.

2. Based on the results of systematic planning, determine and document the decision as to whether the EPA is able to develop scientifically and statistically sound emission estimating methodologies for each originally planned emission source and pollutant combination.

3. For the emission source and pollutant combinations for which the Office of Air and Radiation determines it can develop scientifically and statistically sound emission estimating methodologies, establish public milestone dates for issuing each draft emission estimating methodology. For any emission source and pollutant combinations for which the Office of Air and Radiation determines that it cannot develop scientifically and statistically sound emission estimating methodologies, notify the Office of Enforcement and Compliance Assurance of that determination.

We recommend that the Assistant Administrator for Enforcement Compliance and Assurance:

4. For any emission source and pollutant combinations for which the Office of Air and Radiation determines it cannot develop emission estimating methodologies, notify Air Compliance Agreement participants of this determination, and that the release and covenant not to sue for those emission sources and pollutant types will expire in accordance with paragraph 38 of the 2005 Air Compliance Agreement.

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Agency Response and OIG Evaluation

The Office of Air and Radiation agreed with Recommendations 1, 2 and 3, and provided acceptable planned corrective actions and completion dates. The Office of Enforcement and Compliance Assurance agreed with Recommendation 4 and provided an acceptable corrective action plan.

The agency also provided technical comments that were incorporated into our final report as appropriate. Appendices A and B contain the responses to our report from the Office of Air and Radiation, and the Office of Enforcement and Compliance Assurance, respectively.

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Chapter 4
EPA Has Not Updated Some Stakeholders and Public on Current Status of EEM Efforts

The 2005 Air Compliance Agreement between the AFO industry and the EPA generated significant stakeholder and public interest in AFO air emissions, and any actions the agency would take to address those emissions. Leading up to the monitoring study, and for 2 years after monitoring data was available, the EPA provided frequent public updates related to the NAEMS and EEMs. However, since the SAB's 2013 final report, the agency had provided only high-level updates to selected stakeholders. This left many stakeholders and the public uninformed about the current status of the work, the reasons for delays, and current timelines for finalizing the EEMs. The EPA should resume providing public updates on the status of EEM development through its website or other public means, to ensure the transparency of its process and accountability in setting completion dates.

EPA Provided Extensive Public Outreach During Early Stages

The EPA issued four press releases in 2006 announcing individual agreements entered into between the EPA and AFOs. Further, in the years after it received all monitoring data in 2010, the EPA provided frequent updates on EEM development efforts and the SAB's review of draft EEMs. In 2011, the EPA published data from the NAEMS monitoring, issued a Call for Information to collect information to supplement the NAEMS data, and updated the public on processes related to the planned SAB review. In 2012, the EPA released its draft EEMs for public comment.

EPA Has Not Publicly Communicated on EEM Development Efforts Since 2013

Since the EPA posted the SAB's 2013 final report on its public website, the EPA had not updated some stakeholders and the public on recent aspects of its NAEMS data analysis and EEM development efforts. An OAQPS manager told us that the agency planned to post final EEMs on its public webpage, but used other mechanisms to provide updates on the status of EEM development. Such updates were provided only upon request, and typically to groups with which the agency had regular contact, such as the USDA's Agricultural Air Quality Task Force. Numerous interested parties—including the SAB Chair, a SAB panel member, and three external groups—told us that they had no information about the ongoing NAEMS data analysis, the reasons for delays, or how long it might take the EPA to publish final EEMs.

Further, staff at the USDA told us that while they periodically received high-level updates from the EPA at Agricultural Air Quality Task Force and intra-agency

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workgroup meetings, they were not aware of the EPA's current plans for completing EEM development. The EPA's 2016 update to the Agricultural Air Quality Task Force provided the SAB's recommendations regarding the draft EEMs, as previous updates had done, and stated that the EPA will continue developing EEMs to account for air emissions from AFOs.

Conclusion

Despite being years behind schedule in finalizing the EEMs, the EPA has not provided public updates since 2013 on the NAEMS data analysis and the agency's current efforts to finalize the EEMs. Thus, stakeholders and the public do not know where the EPA currently stands with respect to EEM development. To ensure transparency and accountability in completing EEMs for the $15 million investment in the NAEMS study, the EPA should provide public updates on the status of EEM development and establish public milestones for completion of each draft EEM.

Recommendation

We recommend that the Assistant Administrator for Air and Radiation:

5. Provide the public with the status of emission estimating methodology development and the agency's planned next steps for analyzing the National Air Emissions Monitoring Study data and finalizing the emission estimating methodologies, including the completion of milestone dates for each draft emission estimating methodology it plans to develop.

Agency Response and OIG Evaluation

The Office of Air and Radiation agreed with Recommendation 5, and provided an acceptable corrective action plan and completion date. The Office of Air and Radiation also provided technical comments that were incorporated into our final report as appropriate. Appendix A contains the Office of Air and Radiation's response to our report.

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Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS

Rec. No.	Page No.	Subject	Status[1]	Action Official	Planned Completion Date	Potential Monetary Benefits (in $000s)
1	23	In accordance with EPA quality assurance guidance, conduct comprehensive systematic planning for future emission estimating methodology development through either the quality assurance project plan or pre-dissemination review processes. o If the EPA chooses to develop a quality assurance project plan, it should first develop data quality objectives for the emission estimating methodologies. o If the EPA chooses to conduct a pre-dissemination review, it should obtain independent, external feedback on the adequacy of its emission estimating methodologies development and plans prior to beginning the project.	R	Assistant Administrator for Air and Radiation	3/31/18	
2	23	Based on the results of systematic planning, determine and document the decision as to whether the EPA is able to develop scientifically and statistically sound emission estimating methodologies for each originally planned emission source and pollutant combination.	R	Assistant Administrator for Air and Radiation	6/30/18	
3	23	For the emission source and pollutant combinations for which the Office of Air and Radiation determines it can develop scientifically and statistically sound emission estimating methodologies, establish public milestone dates for issuing each draft emission estimating methodology. For any emission source and pollutant combinations for which the Office of Air and Radiation determines that it cannot develop scientifically and statistically sound emission estimating methodologies, notify the Office of Enforcement and Compliance Assurance of that determination.	R	Assistant Administrator for Air and Radiation	6/30/18	
4	23	For any emission source and pollutant combinations for which the Office of Air and Radiation determines it cannot develop emission estimating methodologies, notify Air Compliance Agreement participants of this determination, and that the release and covenant not to sue for those emission sources and pollutant types will expire in accordance with paragraph 38 of the 2005 Air Compliance Agreement.	R	Assistant Administrator for Enforcement and Compliance Assurance	9/30/18[2]	
5	26	Provide the public with the status of emission estimating methodology development and the agency's planned next steps for analyzing the National Air Emissions Monitoring Study data and finalizing the emission estimating methodologies, including the completion of milestone dates for each draft emission estimating methodology it plans to develop.	R	Assistant Administrator for Air and Radiation	6/30/18	

[1] C = Corrective action completed.
R = Recommendation resolved with corrective action pending.
U = Recommendation unresolved with resolution efforts in progress.

[2] If applicable, based on the Office of Air and Radiation's determination in response to Recommendation 3.

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Office of Air and Radiation Response to Draft Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 23 2017

OFFICE OF
AIR AND RADIATION

MEMORANDUM

SUBJECT: Response to the Office of Inspector General's Draft Report, *Emissions From Animal Feeding Operations Remain Largely Uncharacterized More Than 7 Years After Study Completed* (Project No. OPE-FY16-0018)

FROM: Sarah Dunham
Acting Assistant Administrator

TO: Carolyn Copper
Assistant Inspector General
Office of Program Evaluation
Office of Inspector General

The EPA's Office of Air and Radiation (OAR) appreciates the opportunity to review and comment on the Office of Inspector General (OIG) draft report titled " *Emissions From Animal Feeding Operations Remain Largely Uncharacterized More Than 7 Years After Study Completed.* " OAR agrees in general with the OIG's recommendations.

OAR's current task is the development of Emissions Estimating Methodologies (EEMs) for animal feeding operat ions (AFOs), using statistically -based methodologies to develop emissions factors for select types of AFOs from data collected through the National Air Emissions Monitoring Study (NAEMS). In partnership with the Office of Research and Development (ORD), we are undertaking this effort and incorporating a National Academy of Sciences (NAS) recommendation that the EPA develop an interim method for estimating emissions while we participate in a longer -term effort to develop process -based EEMs. In addition, our work will include objectives outlined in the 2005 Air Compliance Agreement (Agreement) the EPA entered into with participating AFOs. The AFO sectors represented in the Agreement covered the monitoring study costs. Individual participating AFOs did not directly pay monitoring study funds. The EPA remains committed to fulfilling this goal of developing EEMs for AFOs based on scientifically and statistically sound methods. The

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statistically-based EEMs must also be easily implemented by the agricultural communi ty and other users, and be based on non -proprietary inputs.

While we generally agree with your characterizations of the Agreement and the associated NAEMS, there are a few places where information in the draft report is slightly unclear where the information differs from our understanding of specific facts. Please refer to the attached list of these instances and suggested revisions intended to help clarify and improve the draft report's accuracy.

Below are OAR's responses to the OIG's specific recommendations (recommendation numbers 1, 2, 3 and 5), which we developed in consultation with ORD. On June 9, 2017, OECA provided a separate response to recommendation number 4 as it is assigned to their office. In the attached technical comments, we provide suggested additional detailed changes in the form of a markup.

Recommendation 1: In accordance with EPA quality assurance guidance, conduct comprehensive systematic planning for future emission estimating methodology development through either the quality assu rance project plan or pre-dissemination review processes.

- **If the EPA chooses to develop a quality assurance project plan, it should first develop data quality objectives for the emission estimating methodologies.**

- **If the EPA chooses to conduct a pre -dissemination review, it should obtain independent, external feedback on the adequacy of its emission estimating methodologies development and plans prior to beginning the project.**

Response 1: OAR and ORD agree with this recommendation and have initiated development of a quality assurance project plan (QAPP) for evaluation of the data and completion of the EEMs. As part of the QAPP development, appropriate data quality objectives will be defined. We intend to make this document publicly available on our website (see below).

Planned completion date: FY 2018, Q2 (March).

Recommendation 2: Based on the results of systematic planning, determine and document the decision as to whether the EPA is able to develop scientifically and statistically sound emission estimating methodologies for each originally planned emission source and pollutant combination.

Response 2: OAR agrees with this recommendation. As noted, completion of this task is contingent upon the results and decisions made during the QAPP development. Upon completion of the QAPP, OAR and ORD will determine which EEMs can be completed and the appropriate schedules for their completion. We intend to make the schedules publicly available on our website (see below).

Planned Completion Date : As stated above , development of the QAPP is ongoing with completion anticipated in the second quarter of FY 2018. Upon completion of the QAPP, decisions

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on EEM development and schedules will be determined and transmitted to the Office of Enforcement and Compliance Assura nce (OECA). We anticipate that the schedules will be established in third quarter of FY 2018.

Recommendation 3: For the emission source and pollutant combinations for which the Office of Air and Radiation determines it can develop scientifically and statistically sound emission estimating methodologies, establish public milestone dates for issuing each draft emission estimating methodology. For any emission source and pollutant combinations for which the Office of Air and Radiation determines that it cann ot develop scientifically and statistically sound emission estimating methodologies, notify the Office of Enforcement and Compliance Assurance of that determination.

Response 3: OAR agrees with this recommendation and will develop a schedule for completio n of the EEMs after completion of data review and QAPP development, which is currently planned for completion in the second quarter of FY 2018.

Planned Completion Date: As stated above, development of the QAPP is ongoing with completion anticipated in the second quarter of FY 2018. Upon completion of the QAPP, decisions on EEM development and schedules will be determined and transmitted to OECA and made available to the public. We anticipate that the schedules will be established in the third quarter of FY 2018.

Recommendation 5: Provide the public with the status of emission estimating methodology development and the agency's planned next steps for analyzing the National Air Emissions Monitoring Study data and finalizing the emission estimating methodolo gies, including the completion milestone dates for each draft emission estimating methodology it plans to develop.

Response 5: OAR agrees with this recommendation and will post the schedule on our website for completion of the EEMs after completion of da ta review and QAPP development, which is currently planned for completion in the second quarter of FY 2018. We anticipate providing updates on our progress with subsequent website postings.

Planned Completion Date : As stated above, development of the QAPP is ongoing with completion anticipated in the second quarter of FY 2018. Upon completion of the QAPP, decisions on EEM development and schedules will be determined and milestones will be made available to the public. We anticipate that the schedules will be established in the third quarter of FY 2018.

If you have any questions regarding this response, please contact Mike Jones, Office of Air Quality Planning and Standards (OAQPS) Audit Liaison, at (919) 541-0528.

Attachment

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Office of Enforcement and Compliance Assurance Response to Draft Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN - 9 2017

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

MEMORANDUM

SUBJECT: Response to the Office of Inspector General Draft Report: "Emissions from Animal Feeding Operations Remain Largely Uncharacterized More Than 7 Years After Study Completed," Project No. OPE-FY16-0018 (May 12, 2017)

FROM: Lawrence E. Starfield
Acting Assistant Administrator
Office of Enforcement and Compliance Assurance

TO: Carolyn Copper
Assistant Inspector General
Office of Program Evaluation
Office of Inspector General

Thank you for the opportunity to respond to the Office of Inspector General (OIG) Draft Report, "Emissions from Animal Feeding Operations Remain Largely Uncharacterized More Than 7 Years After Study Completed" (Draft Report). The Office of Enforcement and Compliance Assurance (OECA) appreciates OIG's careful examination of this issue, and we are committed to following the terms of the Animal Feeding Operations (AFO) Air Compliance Agreement (Agreement) and OIG's recommendation for OECA – Recommendation Number 4. We concur with Recommendation Number 4, and we provide a high-level intended corrective action with an estimated completion date below.

While we generally agree with your characterizations of the Agreement and its associated National Air Emissions Monitoring Study (NAEMS), there are a few places where the Draft Report is slightly unclear or where the information differs from our understanding of specific facts. Enclosed for your consideration, we include a list of these instances and suggested revisions intended to help clarify and improve the Draft Report's accuracy.

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OECA has discussed the Draft Report with the Office of Air and Radiation (OAR) and we understand that OAR will be providing a separate response addressing the Draft Report's findings and recommendations for OAR – Recommendation Numbers 1, 2, 3, and 5.

OECA Response to Recommendation Number 4 – Concur

No.	Recommendation	High-Level Intended Corrective Action	Planned Completion Date
4	For any emission source and pollutant combinations for which the Office of Air and Radiation determines it cannot develop emission estimating methodologies, notify Air Compliance Agreement participants of this determination and that the release and covenant not to sue for those emission sources and pollutant types will expire in accordance with paragraph 38 of the 2005 Air Compliance Agreement.	If the EPA determines it cannot develop emission estimating methodologies for any emission source and pollutant combinations, OECA will notify Agreement participants in writing that the EPA has made such a determination and that the release and covenant not to sue will expire in accordance with paragraph 38 of the Agreement.	If necessary, OECA will complete the intended corrective action within 60 days of OAR finalizing its determination.

We concur with OIG's recommendation that OECA notify Agreement participants if OAR determines that it cannot develop emission estimating methodologies for any emission source and pollutant combinations. OECA notes that this recommendation will only require a corrective action if OAR determines it cannot develop emission estimating methodologies for any source and pollutant combinations. Paragraph 38 of the Agreement requires the EPA to notify Agreement participants in writing if the Agency makes such a determination. OECA intends to continue abiding by the Agreement's terms, and we will notify Agreement participants if the Agency determines it cannot develop emission estimating methodologies for any emission source and pollutant combinations.

If you have any questions regarding this response, please contact OECA Audit Liaison, Gwendolyn Spriggs, at 202.564.2439.

Attachment

cc: Susan Shinkman, OECA/OCE
Rosemarie Kelley, OECA/OCE
Lauren Kabler, OECA/OCE
Apple Chapman, OECA/OCE
Tim Sullivan, OECA/OCE

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Gwendolyn Spriggs, OECA/OAP
Sarah Dunham, OAR
Robin Dunkins, OAR/OAQPS
Mike Jones, OAR/OAQPS

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Distribution

The Administrator
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Chief of Staff for Operations
Deputy Chief of Staff for Operations
Assistant Administrator for Air and Radiation
Assistant Administrator for Enforcement and Compliance Assurance
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Agency Follow-Up Coordinator
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Career Deputy Assistant Administrator, Office of Air and Radiation
Deputy Assistant Administrator, Office of Enforcement and Compliance Assurance
Audit Follow-Up Coordinator, Office of the Administrator
Audit Follow-Up Coordinator, Office of Air and Radiation
Audit Follow-Up Coordinator, Office of Enforcement and Compliance Assurance

ED_001803A_00006264-00040

To: Samantha Dravis (dravis.samantha@epa.gov)[dravis.samantha@epa.gov]
From: Bodine, Susan
Sent: Tue 11/21/2017 11:12:38 PM
Subject: FW: revised memo
Memo **Ex. 5 - Deliberative Process** docx

Should have included you as well.

From: Bodine, Susan
Sent: Tuesday, November 21, 2017 6:09 PM
To: Bowman, Liz <Bowman.Liz@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Ferguson, Lincoln <ferguson.lincoln@epa.gov>
Cc: Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Cory, Preston (Katherine) <Cory.Preston@epa.gov>; Ford, Hayley <ford.hayley@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>
Subject: RE: revised memo

V 3.

From: Bowman, Liz
Sent: Tuesday, November 21, 2017 5:50 PM
To: Lyons, Troy <lyons.troy@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>; Ferguson, Lincoln <ferguson.lincoln@epa.gov>
Cc: Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Cory, Preston (Katherine) <Cory.Preston@epa.gov>; Ford, Hayley <ford.hayley@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>
Subject: RE: revised memo

Additional edits on top of Troy's.

From: Lyons, Troy
Sent: Tuesday, November 21, 2017 5:43 PM
To: Bodine, Susan <bodine.susan@epa.gov>; Ferguson, Lincoln <ferguson.lincoln@epa.gov>
Cc: Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Cory, Preston (Katherine) <Cory.Preston@epa.gov>; Bowman, Liz <Bowman.Liz@epa.gov>; Ford, Hayley <ford.hayley@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>

Subject: RE: revised memo

Two minor edits

From: Bodine, Susan
Sent: Tuesday, November 21, 2017 5:35 PM
To: Ferguson, Lincoln <ferguson.lincoln@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>
Cc: Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Cory, Preston (Katherine) <Cory.Preston@epa.gov>; Bowman, Liz <Bowman.Liz@epa.gov>; Ford, Hayley <ford.hayley@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>
Subject: revised memo
Importance: High

From: Ferguson, Lincoln
Sent: Tuesday, November 21, 2017 3:24 PM
To: Lyons, Troy <lyons.troy@epa.gov>
Cc: Bodine, Susan <bodine.susan@epa.gov>; Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Cory, Preston (Katherine) <Cory.Preston@epa.gov>; Bowman, Liz <Bowman.Liz@epa.gov>; Ford, Hayley <ford.hayley@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>
Subject: Re: Memo for the Administrator

Please come to the Admins office at 3:45 to finish this up before he leaves.

Sent from my iPhone

On Nov 21, 2017, at 3:14 PM, Lyons, Troy <lyons.troy@epa.gov> wrote:

> Updated for your review
>
> **From:** Lyons, Troy
> **Sent:** Tuesday, November 21, 2017 3:06 PM
> **To:** Bodine, Susan <bodine.susan@epa.gov>; Ferguson, Lincoln

<ferguson.lincoln@epa.gov>
Cc: Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Cory, Preston (Katherine) <Cory.Preston@epa.gov>; Bowman, Liz <Bowman.Liz@epa.gov>; Ford, Hayley <ford.hayley@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>
Subject: RE: Memo for the Administrator
Importance: High

For the group's review

From: Bodine, Susan
Sent: Tuesday, November 21, 2017 3:03 PM
To: Ferguson, Lincoln <ferguson.lincoln@epa.gov>
Cc: Lyons, Troy <lyons.troy@epa.gov>; Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Cory, Preston (Katherine) <Cory.Preston@epa.gov>; Bowman, Liz <Bowman.Liz@epa.gov>; Ford, Hayley <ford.hayley@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>
Subject: Re: Memo for the Administrator

Ex. 5 - Deliberative Process

Sounds like that is the plan

Sent from my iPhone

On Nov 21, 2017, at 2:54 PM, Ferguson, Lincoln <ferguson.lincoln@epa.gov> wrote:

> Once this is complete, he'd like to meet with this group + Liz by the end of the day
>
> **From:** Ferguson, Lincoln

Sent: Tuesday, November 21, 2017 2:28 PM
To: Bodine, Susan <bodine.susan@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Greenwalt, Sarah <greenwalt.sarah@epa.gov>
Cc: Cory, Preston (Katherine) <Cory.Preston@epa.gov>
Subject: Memo for the Administrator

The Administrator just got off the phone with the Governor.

A few action items:

Ex. 5 - Deliberative Process

Lincoln Ferguson

Senior Advisor to the Administrator

U.S. EPA

(202) 564-1935

<Call with Governor Dauggard Ex. 5 - Deliberative Process 11-21-17.docx>

To: Sarah Greenwalt (greenwalt.sarah@epa.gov)[greenwalt.sarah@epa.gov]; David Fotouhi (fotouhi.david@epa.gov)[fotouhi.david@epa.gov]; Forsgren, Lee[Forsgren.Lee@epa.gov]
From: Bodine, Susan
Sent: Tue 9/26/2017 8:26:58 PM
Subject: FW: WOTUS withdrawal comments
[Untitled].pdf

WOTUS withdrawal comments signed by all 11 Republican Senate EPW members filed today (with the referenced attachments).

From: Donaldson, Teri (EPW) [mailto:Teri_Donaldson@epw.senate.gov]
Sent: Tuesday, September 26, 2017 4:12 PM
To: Bodine, Susan <bodine.susan@epa.gov>
Subject: RE: WOTUS withdrawal comments

Hi Susan,

I'm sure this will be delivered through official channels, but here is your advanced peek.

Hope all is well with you!

Teri

From: Bodine, Susan [mailto:bodine.susan@epa.gov]
Sent: Friday, September 22, 2017 1:14 PM
To: Russell, Richard (EPW) <Richard_Russell@epw.senate.gov>; Donaldson, Teri (EPW) <Teri_Donaldson@epw.senate.gov>
Subject: WOTUS withdrawal comments

Will EPW members be filing comments? (Due Sept 27)

Susan

JOHN BARRASSO, WYOMING, *CHAIRMAN*

JAMES M. INHOFE, OKLAHOMA
SHELLEY MOORE CAPITO, WEST VIRGINIA
JOHN BOOZMAN, ARKANSAS
ROGER WICKER, MISSISSIPPI
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EDWARD J. MARKEY, MASSACHUSETTS
TAMMY DUCKWORTH, ILLINOIS
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RICHARD M. RUSSELL, *MAJORITY STAFF DIRECTOR*
GABRIELLE BATKIN, *MINORITY STAFF DIRECTOR*

United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510–6175

September 21, 2017

The Honorable E. Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Mr. Douglas W. Lamont
Deputy Assistant Secretary of the Army
108 Army Pentagon
Washington, DC 20310

Re: *EPA Docket No. EPA-HQ-OW-2017-0203, Definition of "Waters of the United States" – Recodification of Pre-existing rules*

Dear Administrator Pruitt and Deputy Assistant Secretary Lamont:

We commend you for your proposal to withdraw the deeply flawed "Waters of the United States" (WOTUS) rule that was promulgated by the prior administration in June 2015.[1]

Your proposal solicits comment as to whether it is desirable and appropriate to withdraw the 2015 WOTUS rule. 82 Fed. Reg. 34899, 34903 (July 27, 2017). Not only is it desirable and appropriate, the proposed action is necessary.

As you know, on August 27, 2015, Judge Erickson of the District of North Dakota, issued an injunction that prevented the WOTUS rule from going into effect in 13 states because the rulemaking record is "inexplicable, arbitrary, and devoid of a reasoned process." In October of 2015, the Sixth Circuit Court of Appeals issued a nationwide stay of the 2015 WOTUS rule.

Eighty-eight members of Congress filed an *amicus* brief on November 8, 2016, in support of state petitioners, and business and municipal petitioners, challenging the 2015 WOTUS rule. All 88 members of Congress concluded that the 2015 WOTUS rule exceeds the authority granted to the Environmental Protection Agency (EPA) and the Corps of Engineers (Corps) by Congress.[2] The 2015 WOTUS rule should be withdrawn because the rule exceeds the authority granted to these agencies by Congress.

---

[1] 80 Fed. Reg. 37,054 (Jun. 29, 2015).

[2] *See* Brief of Members of Congress as Amici Curiae in Support of State Petitioners and Business and Municipal Petitioners, 6th Cir. Case No. 15-3751, Nov. 8, 2016 (hereinafter Congressional Amicus Brief) (attached).

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Further, as demonstrated by memoranda prepared by the Corps of Engineers, as well as testimony received by the Committee on Environment and Public Works on April 26, 2017, at a hearing entitled "A Review of the Technical, Scientific, and Legal Basis of the WOTUS Rule," the 2015 WOTUS rule is not based on the experience and expertise of the Corps of Engineers, and cannot be justified by scientific studies.[3] Thus, the 2015 WOTUS rule is arbitrary and capricious and must be withdrawn on this basis as well.

We submit this comment letter and its attachments for your consideration.

The 2015 WOTUS Rule Is Contrary To Law

The 2015 WOTUS rule was based on the erroneous premise that federal jurisdiction over water is whatever the federal agency wants it to be to advance its latest policy objectives. The courts have been clear however that a federal agency may not exceed the statutory authority granted to it by Congress. Courts have made this point many times:

- *Utility Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2444 (2014) (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 120 S. Ct. 1291, 1315 (2000))("[w]hen an agency claims to discover in a long-extant statute an unheralded power to regulate ... we typically greet its announcement with a measure of skepticism.").

- *Rapanos v. United States*, 547 U.S. 715, 755-56 (2006) (Scalia, J., plurality) ("This is the familiar tactic of substituting the purpose of the statute for its text, freeing the Court to write a different statute that achieves the same purpose.").

- *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159, 172 (2001) ("Where an administrative interpretation of a statute invokes the outer limits of Congress' power, we expect a clear indication that Congress intended that result."); *id.* at 173 ("This concern is heightened where the administrative interpretation alters the federal-state framework by permitting federal encroachment upon a traditional state power.").

- *Rodriguez v. United States*, 480 U.S. 522, 525-266 (1987) ("But no legislation pursues its purposes at all costs. Deciding what competing values will or will not be sacrificed to the achievement of a particular objective is the very essence of legislative choice -- and it frustrates, rather than effectuates, legislative intent simplistically to assume that whatever furthers the statute's primary objective must be the law.").

---

[3] *See* April 27, 2015 letter from General Peabody to Assistant Secretary of the Army Darcy; May 15, 2015 letter from General Peabody to Assistant Secretary of the Army Darcy; May 15, 2015 memorandum from Jennifer Moyer to General Peabody; April 24, 2015 memorandum from Lance Wood to General Peabody; April 24, 2015 Memorandum from Jennifer Moyer to General Peabody; April 26, 2017 Testimony of Dr. Michael Josselyn before the Senate Committee on Environment and Public Works; April 26, 2017 Testimony of MG John Peabody (ret.) before the Senate Committee on Environment and Public Works; April 26, 2017 Testimony of Misha Tseytlin before the Senate Committee on Environment and Public Works. (all attached).

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- *Mexichem Fluor, Inc. v. Environmental Protection Agency*, D.C. Cir. Case no. 15-1348 (Aug. 8, 2017) ("The agency must have statutory authority for the regulations it wants to issue.").

- *National Mining Ass'n v. United States Army Corps of Engineers*, 145 F.3d 1399 (D.C. Cir. 1998) ("If the agencies and NWF believe that the Clean Water Act inadequately protects wetlands and other natural resources by insisting upon the presence of an "addition" to trigger permit requirements, the appropriate body to turn to is Congress.").

In the 2015 WOTUS rule, EPA and the Corps attempted to expand their authority to meet their policy preferences. However, in the Federal Water Pollution Control Act, Congress did not grant EPA and the Corps unlimited authority to define the extent of their own regulatory authority. Thus, it does not matter if EPA and the Corps concluded in 2015 that all water is connected, including isolated, non-navigable intrastate water, rainwater runoff and ephemeral flows, groundwater, and water that does not contribute pollutants to navigable water. Congress did not give the agencies the authority to regulate such water.

The limitations on federal jurisdiction under the Federal Water Pollution Control Act are apparent from the text of the statute as well as the contemporaneous debate over federal authority that provides context to both the 1972 and the 1977 amendments to the Federal Water Pollution Control Act.

The 1972 amendments to the Federal Water Pollution Control Act directly responded to concerns over the limits of both the permitting authority under the 1899 Rivers and Harbors Act and enforcement of water quality standards under the 1965 amendments to the Federal Water Pollution Control Act.[4] The 1972 amendments established a regulatory framework under which state-developed water quality standards were federally enforceable in intrastate navigable waters, as well as interstate navigable waters and their tributaries, and under which the states could take the lead in issuing permits applying effluent limitations for discharges into those waters.[5]

In support of the 2015 WOTUS rule, the previous administration, EPA and the Corps made the novel claim that federal jurisdiction over water is as broad as the objective of the Federal Water Pollution Control Act set forth in section 101(a) (stating that the objective of the Act is "to restore and maintain the chemical, physical and biological integrity of the Nation's waters"). 80 Fed. Reg. at 37,055-56. These agencies further reinterpreted the objective of the Act to expand the reference to "physical" integrity to encompass water supply and the reference to "biological" integrity to encompass wildlife habitat. This claim of authority conflicts with the Supreme Court's rulings in *Rodriguez*, and other cases cited above, as well as the language and structure of the statute and its legislative history.[6] The goal statement of the Federal Water Pollution Control Act does not address jurisdiction at all. It is nothing more than a statement of water *quality* goals for the water that is regulated.[7]

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[4] *See* S. Rept. 92-414, 92nd Cong. 1st Sess. 70-71.

[5] *Id.* at 77.

[6] *See Congressional Amicus* Brief at 15-18.

[7] *See* Congressional *Amicus* Brief at 18 (citing the explanation of the Act's objective provided by Senator Muskie).

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In 1965, Congress made water quality standards federally enforceable in interstate navigable waters only. The 1972 amendments expanded federal jurisdiction from interstate navigable waters and their tributaries to include intrastate navigable waters and their tributaries, if part of a highway of commerce that could include highways and railways, in addition to water transportation.[8]

In enacting this expansion, at no time did Congress consider regulating isolated, non-navigable intrastate water, rainwater runoff and ephemeral flows, groundwater, water that does not contribute pollutants to navigable water, or waters based solely on their use as wildlife habitat. In fact, the 1973 report issued by the congressionally-chartered National Water Commission *after* the enactment of the current definition of "waters of the United States," recommended that *states* protect state-owned wetlands used by waterfowl. None of the water experts who served on the Commission suggested that those wetlands were already regulated by the federal government.[9]

Consistent with the legislative history of the Act, the Commission described the jurisdictional expansion in the 1972 amendments as follows: "The water quality standards established in response to the 1965 Water Quality Act are retained as a floor under the new effluent limitations and are expanded to include *all navigable waters*."[10] The Commission further noted that permits for dredging and channel alteration issued by the Corps of Engineers Act "are required only when the waters are navigable in interstate or foreign commerce, and no application for a Corps permit need be filed for those activities in other inland waters."[11] As a result, the Commission made the following recommendation: "Since the States historically have been viewed as having regulatory jurisdiction over waters which are not navigable in interstate or foreign commerce, the Commission believes that the States should enact statutes which would provide adequate measures of protection to fish and wildlife values."[12] This contemporaneous interpretation of the 1972 amendments confirms that the objective of the Federal Water Pollution Act is to protect the quality of navigable water, not wildlife habitat generally, which is an important subject addressed in other federal and state legislation.

Nothing in *United States v. Riverside Bayview Homes, Inc*, 474 U.S. 121 (1985) contradicts this interpretation. In that case the Supreme Court deferred to the Corps' determination that regulation of navigable water included regulation of adjacent wetlands because the agencies must make a determination of where open waters end and dry land begins. *Id.* at 132. In the fact pattern presented to the Court, the wetlands were an extension of the navigable water. That may be an "ecological" connection, but *Riverside Bayview* does not support an argument that any "ecological" connection to navigable water creates jurisdiction. If there was any doubt of that fact, in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers ("SWANCC")*, 531 U.S. 159 (2001) the Supreme Court put that doubt to rest. Use of water as

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[8] *See* Congressional *Amicus* Brief at 5-6.

[9] *See* Congressional *Amicus* Brief at 8-9.

[10] *See* National Water Commission (June 1973), Water Policies For The Future: Final Report to the President and to the Congress of the United States at 87 (emphasis added) (attached).

[11] *Id.* at 201.

[12] *Id.* at 202.

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wildlife habitat is not a basis for federal jurisdiction under the Federal Water Pollution Control Act. *Id.* at 172-173.

In expanding the jurisdiction of the Federal Water Pollution Control Act to include intrastate navigable water, Congress also did not consider regulating isolated, non-navigable intrastate water, rainwater runoff and ephemeral flows, groundwater, and water that does not contribute pollutants to navigable water, based on their effects on water supply. Congress made that very clear in 1977, when Congress added section 101(g) to the Federal Water Pollution Control Act.[13] This amendment responded to an attempt by federal agencies to use the Act to regulate surface flows and groundwater. According to the amendment's sponsor: "This 'State's jurisdiction' amendment reaffirms that it is the policy of Congress that this act is to be used for water *quality* purposes only." 123 Cong. Rec. 39, 211-12 (1977) (floor statement of Senator Wallop) (emphasis added).[14]

Despite the limited grant of federal authority in the Federal Water Pollution Control Act, the June 2015 WOTUS rule purports to regulate water based on its use by birds or mammals or insects, based on its use to control supplies of water through runoff storage, or based on its use to augment water supplies by movement through the ground or over the land. The statute does not give the agencies that authority. The Federal Water Pollution Control Act is and always was a water quality protection statute. The primary responsibilities and rights of States to "to plan the development and use . . . of land and water resources" are expressly preserved. 33 U.S.C. § 1251(b). Thus, the June 2015 WOTUS rule is contrary to law.

The 2015 WOTUS Rule Is Arbitrary and Capricious

The preamble to the 2015 WOTUS rule and the Technical Support Document for that rule repeat nearly *100 times* the claim that the rule is based on the agencies' expertise and/or experience. These documents also claim over *500 times* that the rule is based on "science" or relies on "science." The preamble to the final rule further states:

> This immersion in the science along with the practical expertise developed through case specific determinations across the country and in diverse settings is reflected in the agencies' conclusions with respect to waters that have a significant nexus, as well as where the agencies have drawn boundaries demarking where "waters of the United States" end. 80 Fed. Reg. at 37,065.

The brief filed by the U.S. Department of Justice on January 13, 2017, defending the WOTUS rule, makes similar claims. The brief states *over 30 times* that the rule is based on agency experience and/or expertise and references the "science" or EPA's Science Report *over 150 times*.

These statements are not supported by the record.

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[13] "It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this Act." 33 U.S.C. § 1251(g).

[14] *See* Congressional *Amicus* Brief at 21-22.

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The Corps of Engineers is the agency that makes the vast majority of jurisdictional determinations that identify waters that are regulated under the Clean Water Act. However, according to memoranda sent by Major General John Peabody, former Deputy Commanding General for Civil and Emergency Operations, U.S. Army Corps of Engineers, to Assistant Secretary Darcy on April 24, 2015, and on May 15, 2015, EPA shut the Corps of Engineers out of the development of the WOTUS rule. These memoranda state that the WOTUS rule is *not* based on the experience and expertise of the Corps. For example, an attachment to General Peabody's May 15, 2015 memorandum stated:

> "The [Technical Support Document] emphasizes that the agencies undertook a very thorough analysis of the complex interactions between upstream waters and wetlands and the downstream rivers to reach the significant nexus conclusions underlying the provisions of the draft final rule... *[T]he Corps was not part of any type of analysis to reach the conclusions described; therefore, it is inaccurate to reflect that 'the agencies' did this work or that it is reflective of Corps experience or expertise."*[15]

Further, the 2015 WOTUS rule is not justified or supported by scientific findings. In May 2011, the prior administration issued a draft guidance that purported to delineate the extent of federal jurisdiction under the Federal Water Pollution Control Act. After receiving criticism for issuing a guidance instead of a rule, EPA developed a proposed rule to mirror the draft guidance and collected ecological studies to justify the conclusions *already made* in the draft guidance. In September 2013, the prior administration sent a draft proposed rule to OMB. At the same time, the prior administration issued a draft "Connectivity Study" that purported to justify the proposed rule.

The prior administration convened a panel of scientists to review their study. The panel unsurprisingly agreed that ecological studies show connections among all waters. However, the Connectivity Study does not demonstrate that all waters covered by the rule must be regulated to protect the quality of navigable water. In fact, most of the studies do not even mention navigable water.[16]

A panel member, Dr. Josselyn, raised concerns about the lack of scientific support for regulating ephemeral water in his preliminary comments on the Connectivity Study:

> "The Draft Report contains references that are focused on more perennial and intermittent flowing streams, but presents *very little information on the processes occurring within ephemeral streams.* Because these systems are often the focus of jurisdictional disputes, the specific case history discussion contained in the Draft Report on southwestern streams is very useful. A conclusion reached is that such systems are important to recharging local groundwater systems following surface flow events; however, *it is not clear how this would relate to downstream water quality."*[17]

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[15] May 15, 2015 memorandum from Jennifer Moyer to MG Peabody (attached). See also testimony of General Peabody before the Senate Environment and Public Works Committee on Apr. 26, 2017 (attached).

[16] *See* Congressional *Amicus* Brief at 22-23, 25, 29.

[17] *See* December 2, 2013 letter from Dr. Josselyn to Dr. Rodewald (attached). *See also* testimony of Dr. Josselyn before the Senate Environment and Public Works Committee on Apr. 26, 2017 (attached).

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Corps legal counsel raised similar concerns about the lack of scientific support for the tributary definition in the WOTUS rule:

> "[T]he draft final rule asserts CWA jurisdiction by rule over every 'stream' in the United States, so long as that stream has an identifiable bed, bank, and OHWM. That assertion of jurisdiction over every stream bed has the effect of asserting CWA jurisdiction over many thousands of miles of dry washes and arroyos in the desert southwest, even though those ephemeral dry wastes, arroyos, etc. carry water infrequently and sometimes in small quantities if those features meet the definition of a tributary."[18]

The brief filed by states in the litigation challenging the rule explains the inadequacies of the scientific record:

> "According to the Agencies, the scientific basis for the Rule is that water flows downhill to create hydrological connections, see 80 Fed. Reg. at 37,063, and that the "protection of upstream waters is critical to maintaining the integrity of the downstream waters," id. at 37,056. This is nothing but a truism, and implies a limitless expansion of federal power."

> "The mere existence of a hydrological connection—even a continuous one—is insufficient under Justice Kennedy's holding in Rapanos, 547 U.S. at 769, but that is all the Connectivity Study demonstrates."[19]

Accordingly, even if EPA and the Corps had the authority to expand federal control over land and water, which these agencies do not, the 2015 WOTUS rule lacks record support, is arbitrary and capricious, and should be withdrawn.

The 2015 WOTUS Rule Has Little Chance of Surviving Judicial Review

The indefensibility of the 2015 rule also is a justification for its withdrawal. In addition to the grounds stated by the courts staying the 2015 WOTUS rule, its notable that the Corps raised similar concerns before the final rule was issued, stating that the rule is "... not likely to survive judicial review in federal courts," and is "...inconsistent with SWANCC and Rapanos." The Corps further stated that, "This assertion of CWA jurisdiction over millions of acres of isolated waters...undermines the legal and scientific credibility of the rule" [20]

Given the indefensibility of the 2015 rule, it is preferable to withdraw that rule now, rather than wait for the judicial *vacatur*.

The Economic Impacts of the 2015 WOTUS Rule

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[18] April 24, 2015 Memorandum from Lance Wood to MF Peabody (emphasis in original) (attached).

[19] *See* Opening Brief of State Petitioners, 6th Cir. Case No. 15-3751, Nov. 1, 2016, at 55, 57 (attached). *See also* Tseytlin testimony, at 15.

[20] April 24, 2015 memorandum from Lance Wood to General Peabody, at 9-10.

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In November 2015, four months after the final WOTUS rule was published, EPA added a review of 199 jurisdictional determinations to the WOTUS rule docket.[21] Of the 199 jurisdictional determinations EPA evaluated, 57 were negative. In 47 of those 57 negative jurisdictional determinations, the Corps concluded that federal jurisdiction did not exist because there was no surface connection to navigable water. The 2015 WOTUS rule however no longer requires a surface connection to navigable water to establish federal jurisdiction. Accordingly, some or all of the 47 negative jurisdictional determinations evaluated by EPA could become positive jurisdictional determinations under the 2015 WOTUS rule. If all of the 47 jurisdictional determinations were positive, it would represent 82 percent of the negative jurisdictional determinations reviewed. That is a substantial expansion of federal jurisdiction which would cause economic impacts that should be addressed.

Small Entity Impacts and Federalism

The proposed withdrawal alleges that the action will not have a significant impact on small entities, and does not have federalism implications. 82 Fed. Reg. at 34904. We strongly disagree. Withdrawing the 2015 WOTUS rule will lift a significant threat to small businesses and small governmental entities across the country. Withdrawing the 2015 WOTUS rule also acknowledges the existence of waters of the State that are not federally regulated, consistent with the intent of Congress.

Conclusion

In closing, we noted that the proposed withdrawal of the 2015 WOTUS rule is styled as a "Recodification of Pre-existing Rules." However, the agencies also disavow any intent to reconsider the pre-existing definition. 82 Fed. Reg. at 34903. Accordingly, we interpret the agencies' proposed rule to be a proposal to withdraw the 2015 WOTUS rule. While that withdrawal will result in the reinstatement of the pre-existing regulations, that is a ministerial task of updating the Code of Federal Regulations necessitated by the withdrawal, not a substantive proposal to adopt those regulations.

Having said that, we urge EPA and the Corps to develop a replacement WOTUS rule as soon as possible. The definition of waters of the United States has been the subject of many years of litigation, which could be brought to rest by a scientifically sound WOTUS rule that respects the intent of Congress.

Thank you for considering these comments and supporting documents as you develop your final rule to withdraw the 2015 WOTUS rule.

[21] *See* Analysis of Jurisdictional Determinations for Economic Analysis and rule, EPA-HQ-OW-2011-0880-20877 (attached).

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Sincerely,

John Barrasso, M.D.
Chairman

Dan Sullivan
United States Senator

Shelley Moore Capito
United States Senator

John Boozman
United States Senator

Joni K. Ernst
United States Senator

Roger Wicker
United States Senator

Jerry Moran
United States Senator

James M. Inhofe
United States Senator

M. Michael Rounds
United States Senator

Richard C. Shelby
United States Senator

Deb Fischer
United States Senator

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To: Starfield, Lawrence[Starfield.Lawrence@epa.gov]; Traylor, Patrick[traylor.patrick@epa.gov]
From: Bodine, Susan
Sent: Fri 11/3/2017 6:20:51 PM
Subject: RE: AX-17-000-4907 1957 WH Herron
AX-17-000-4907 1957 WH Herron (LS).docx

Much better. Thanks Larry. I added a few word changes for clarity in the attached.

From: Starfield, Lawrence
Sent: Friday, November 3, 2017 1:40 PM
To: Traylor, Patrick <traylor.patrick@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>
Subject: RE: AX-17-000-4907 1957 WH Herron

Patrick and Susan,

Ex. 5 - Attorney Client

Thanks.

Larry

This message is CONFIDENTIAL, and may contain legally privileged information. If you are not the intended recipient, or believe you received this communication in error, please delete it immediately, do not copy, and notify the sender. Thank you.

From: Traylor, Patrick
Sent: Friday, November 03, 2017 9:44 AM
To: Starfield, Lawrence <Starfield.Lawrence@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>
Subject: FW: AX-17-000-4907 1957 WH Herron

FYI.

Patrick Traylor

Deputy Assistant Administrator

Office of Enforcement and Compliance Assurance

U.S. Environmental Protection Agency

(202) 564-5238 (office)

Ex. 6 - Personal Privacy cell)

From: DeLeon, Rafael
Sent: Thursday, November 2, 2017 3:45 PM
To: Traylor, Patrick <traylor.patrick@epa.gov>
Cc: Fonseca, Silvina <Fonseca.Silvina@epa.gov>
Subject: FW: AX-17-000-4907 1957 WH Herron

Hello Patrick

Ex. 5 - Attorney Client

Ex. 5 - Attorney Client We have prepared it for your signature and would like your approval to put it in final.

Ex. 5 - Attorney Client

OLEM, OSRE, DOJ and Region are all on board with this version.

Silvina—anything else?

Rafael DeLeon, Esq.

Deputy Director

EPA-Office of Enforcement and Compliance Assurance

Office of Site Remediation Enforcement (Mail Code-2271A)

1200 Pennsylvania Ave., N.W. (Room-WJC 5206)

Washington, DC 20460

202 564-5110 (Office Line)

202 564-4899 (Direct Line)

202 302-2761 (Office Cell)

This message is CONFIDENTIAL, and may contain legally privileged information. If you are not the intended recipient, or believe you received this communication in error, please delete it immediately, do not copy, and notify the sender. Thank you.

From: DeLeon, Rafael
Sent: Thursday, November 02, 2017 1:48 PM

To: Fonseca, Silvina <Fonseca.Silvina@epa.gov>
Subject: RE: AX-17-000-4907 1957 WH Herron

Silvina

Ex. 5 - Attorney Client

Ex. 5 - Attorney Client

Rafael DeLeon, Esq.

Deputy Director

EPA-Office of Enforcement and Compliance Assurance

Office of Site Remediation Enforcement (Mail Code-2271A)

1200 Pennsylvania Ave., N.W. (Room-WJC 5206)

Washington, DC 20460

202 564-5110 (Office Line)

202 564-4899 (Direct Line)

Ex. 6 - Personal Privacy ffice Cell)

This message is CONFIDENTIAL, and may contain legally privileged information. If you

are not the intended recipient, or believe you received this communication in error, please delete it immediately, do not copy, and notify the sender. Thank you.

From: Fonseca, Silvina
Sent: Wednesday, October 18, 2017 11:27 AM
To: stacy.coleman@usdoj.gov
Cc: DeLeon, Rafael <Deleon.Rafael@epa.gov>
Subject: AX-17-000-4907 1957WH Herron - Proposed Admin Sig - 9_21_17.CWP with sf Comments.docx

Good morning Stacy,

This is a follow up to a voice mail Rafael and I left you this morning. Attached are the responses

Ex. 5 - Attorney Client

Thank you!

Silvina Fonseca

Special Assistant

Office of the Administrator

U.S. Environmental Protection Agency

Desk: 202.564.1955

Cell: Ex. 6 - Personal Privacy

To: Cory, Preston (Katherine)[Cory.Preston@epa.gov]
From: Bodine, Susan
Sent: Mon 11/20/2017 9:24:02 PM
Subject: RE: Mayor Horrigan (Akron)

Give me a call please

Ex. 6 - Personal Privacy

I used to represent Akron.

From: Cory, Preston (Katherine)
Sent: Monday, November 20, 2017 2:15 PM
To: Bodine, Susan <bodine.susan@epa.gov>
Subject: Mayor Horrigan (Akron)

Hi Susan,

Will you be in town December 5? If so, the Mayor of Akron has requested a meeting. Please let me know and I'll send over a calendar invite.

Thanks,

Preston

K. Preston Cory

Special Advisor

Office of the Administrator, Congressional and Intergovernmental Relations

U.S. Environmental Protection Agency

202-579-4281

To: Ferguson, Lincoln[ferguson.lincoln@epa.gov]
Cc: Jackson, Ryan[jackson.ryan@epa.gov]; Patrick Traylor (traylor.patrick@epa.gov)[traylor.patrick@epa.gov]; Bowman, Liz[Bowman.Liz@epa.gov]; Lyons, Troy[lyons.troy@epa.gov]; Samantha Dravis (dravis.samantha@epa.gov)[dravis.samantha@epa.gov]
From: Bodine, Susan
Sent: Tue 11/28/2017 3:04:50 PM
Subject: RE: Memo Ex. 5 - Deliberative Process
Memo Ex. 5 - Deliberative Process 7.docx

Sorry. Use this one. Ex. 5 - Deliberative Process
Ex. 5 - Deliberative Process

From: Bodine, Susan
Sent: Tuesday, November 28, 2017 9:48 AM
To: Ferguson, Lincoln <ferguson.lincoln@epa.gov>
Cc: Jackson, Ryan <jackson.ryan@epa.gov>; Patrick Traylor (traylor.patrick@epa.gov) <traylor.patrick@epa.gov>; Bowman, Liz <Bowman.Liz@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Samantha Dravis (dravis.samantha@epa.gov) <dravis.samantha@epa.gov>
Subject: Memo Ex. 5 - Deliberative Process

To: Levine, Carolyn[Levine.Carolyn@epa.gov]
Cc: Palich, Christian[palich.christian@epa.gov]; Traylor, Patrick[traylor.patrick@epa.gov]
From: Bodine, Susan
Sent: Mon 11/20/2017 9:17:15 PM
Subject: RE: SEPW RE: RPM Act TA

Not for me.

From: Levine, Carolyn
Sent: Monday, November 20, 2017 4:06 PM
To: Bodine, Susan <bodine.susan@epa.gov>
Cc: Palich, Christian <palich.christian@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>
Subject: RE: SEPW RE: RPM Act TA

Ok, I will keep you both posted. The timing is flexible between 1:30-3 if that works.

Carolyn Levine

Office of Congressional and

Intergovernmental Relations

U.S. EPA

(202) 564-1859

levine.carolyn@epa.gov

From: Bodine, Susan
Sent: Monday, November 20, 2017 4:03 PM
To: Levine, Carolyn <Levine.Carolyn@epa.gov>
Cc: Palich, Christian <palich.christian@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>

Subject: RE: SEPW RE: RPM Act TA

I am not available at 1:30.

Copying Patrick.

From: Levine, Carolyn
Sent: Monday, November 20, 2017 3:55 PM
To: Bodine, Susan <bodine.susan@epa.gov>
Cc: Palich, Christian <palich.christian@epa.gov>
Subject: SEPW RE: RPM Act TA

Hi Susan,

SEPW met with SEMA again and they have some additional questions for us on our TA. I checked with Phil and Evan to see if they are available for a call tomorrow and Elizabeth H. is going to invite HEC!for a bipartisan call. Are you available tomorrow, likely 1:30pm? Give me a call if you would like to discuss.

Thanks,

Carolyn

Carolyn Levine

Office of Congressional and

Intergovernmental Relations

U.S. EPA

(202) 564-1859

levine.carolyn@epa.gov

To: Kelley, Rosemarie[Kelley.Rosemarie@epa.gov]; Hindin, David[Hindin.David@epa.gov]; Dombrowski, John[Dombrowski.John@epa.gov]; Starfield, Lawrence[Starfield.Lawrence@epa.gov]; Traylor, Patrick[traylor.patrick@epa.gov]; Shiffman, Cari[Shiffman.Cari@epa.gov]
From: Bodine, Susan
Sent: Wed 12/6/2017 4:24:31 PM
Subject: Fwd: Questions about ECHO data (2nd of two emails)
ForEPA_enforcementdata_NYT.xlsx
ATT00001.htm

Sent from my iPhone

Begin forwarded message:

From: "Bowman, Liz" <Bowman.Liz@epa.gov>
To: "Bodine, Susan" <bodine.susan@epa.gov>, "Traylor, Patrick" <traylor.patrick@epa.gov>
Cc: "Jackson, Ryan" <jackson.ryan@epa.gov>, "Wilcox, Jahan" <wilcox.jahan@epa.gov>, "Ferguson, Lincoln" <ferguson.lincoln@epa.gov>
Subject: Fwd: Questions about ECHO data (2nd of two emails)

Sent from my iPhone

Begin forwarded message:

From: "Lipton, Eric" <lipton@nytimes.com>
To: "Bowman, Liz" <Bowman.Liz@epa.gov>, "Wilcox, Jahan" <wilcox.jahan@epa.gov>
Subject: Questions about ECHO data (2nd of two emails)

Hello Liz and Jahan

Here is a second email with data we pulled. Do you have any response to this analysis? Is there any information you would like to add?

We need any response to this email by Thursday at 5 p.m. Please keep this request private until the story is published.

Eric

Here is an overview of the data

In the first nine months of Mr. Pruitt's tenure at EPA, the agency sought civil

penalties of about $50.4 million from polluters stemming from new cases filed under Mr. Pruitt, which, adjusted for inflation, is about 70 percent of what the Bush administration sought and about 40 percent of what the Obama administration sought during the first nine months after their initial E.P.A. heads were confirmed.

Under Mr. Pruitt, the agency sought injunctive relief of about $1.2 billion stemming from new cases filed under Mr. Pruitt. Adjusted for inflation, that's about 47 percent of what was sought under Bush and about 12 percent of what was sought under Obama.

Under Mr. Pruitt, the EPA has filed at least 1,850 civil cases against polluters. Comparatively, the Bush and Obama administrations each filed more than 2,600 cases. Some enforcement experts have suggested that the EPA might have filed fewer cases because it was going after larger penalties. But most of the top fines and injunctive relief were smaller than those in the previous two administration.

The Times chose a nine-month window to examine because it included the single largest civil case that the EPA under Mr. Pruitt has filed, seeking $2 million in penalties and $300 million in injunctive relief against Exxon Mobil. Because the EPA's public database of enforcement cases is not always updated in a timely fashion, The Times built its own database that also included Trump-era cases found in EPA and Justice Department press releases, the federal register, news reports and at other public sources. We would welcome your input on other cases that should be added.

Here's our Methodology

Our goal was to find a way to look at enforcement patterns during the start of the last three administrations.

We started with the assumption that Scott Pruitt began his tenure at EPA on Feb. 17, 2017. We pulled civil data through Nov. 9, 2017. That is 266 days, counting the end date.

For an apples to apples comparison, we pulled civil data from Lisa Jackson's tenure at EPA, which started on Jan. 23, 2009. We calculated 266 days from that date to be Oct. 15, 2009.

We also pulled civil data from Christine Todd Whitman's tenure at EPA, which started on Jan. 31, 2001. We calculated 266 days at Oct. 23, 2001.

We only pulled data for cases filed (sometimes referred to as a "start") under Mr. Pruitt, Ms. Jackson and Ms. Whitman. The analysis relied on cases started, rather than those concluded, because many cases completed during the first year of a new administration can reflect enforcement that started under the previous administration and is so far along that it is difficult to stop.

For the administrative cases, we pulled cases with complaints or proposed orders in those date ranges. We also pulled cases with final orders issued (but had no complaint or proposed order) in those date ranges.

For judicial cases, we pulled cases with complaints filed with the court in those date ranges.

We checked each 2017 judicial case's summary text in ECHO and also in the federal register, in EPA and DOJ press releases and on google to see if any settlement amounts were missing from the ECHO data. We also searched for cases that didn't make it into ECHO at all and found some large ones, including Exxon. Those were added to our database.

We checked every 2017 administrative case that didn't already have a settlement amount listed in ECHO with the ECHO text, which sometimes listed proposed settlements. To be conservative, we added those proposed settlements to the database as well, even though some may not have materialized.

The data for 2017 was most recently pulled on Nov. 28, 2017. We know that ECHO is not always updated in a timely way, which is why we searched other public sources for missing cases and settlement information. We ask that EPA please tell us if it wants to add any other cases to the 2017 datasets. We would be happy to do so.

We did not add any extra cases to the data from 2009 and 2001. It is pulled entirely from ECHO. We adjusted the totals for 2009 and 2001 for inflation.

We checked all of the data for duplicates and removed those that could be clearly identified.

Attached is a spreadsheet with all the data we pulled as a result of this approach.

Eric Lipton
[redacted]
Washington Bureau
202 862 0448 office
202 370 7951 mobile
lipton@nytimes.com